



Diodes Incorporated Discrete and Analog Semiconductors

Qualification Report - PCN-2133

Manufacturer No.: Qualification of "Diodes Zetex Neuhaus GmbH" as an Additional

Assembly & Test Site and Conversion to Palladium Coated Copper Bond Wire for Selected SOT-23F Packaged Products

Revision: 0

Date: September 25, 2015

Qualified By: Diodes Incorporated

Also Applicable To: The part numbers listed in the associated PCN are Qualified by

Similarity (QBS) to the devices included in this report.

Please go to www.diodes.com for current data sheets on

associated devices

Prepared By: Diodes US Document Control Date September 25, 2015

Approved By: Diodes US QRA Department Date September 25, 2015

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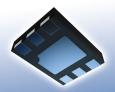


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Existing industry standards for plastic encapsulated microcircuit qualification and reliability monitors are based upon historical data, experiments, and field experience with the use of these devices in commercial and industrial applications. The applicability of these standards in determining the suitability for use and safety performance in life support, military and aerospace applications has not been established. Due to the multiple variations in field operating conditions, a component manufacturer can only base estimates of product life on models and the results of package and die level qualification. The buyer's use of this data, and all consequences of such use, is solely the buyer's responsibility. Buyer assumes full responsibility to perform sufficient engineering and additional qualification testing in order to properly evaluate the buyer's application and determine whether a candidate device is suitable for use in that application. The information provided by Diodes Incorporated shall not be considered sufficient grounds on which to base any such determination.

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DIODES INCORPORATED

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DATE: 25th September, 2015

PCN #: 2133

PCN Title: Qualification of "Diodes Zetex Neuhaus GmbH" as an Additional

Assembly & Test Site and Conversion to Palladium Coated Copper

Bond Wire for Selected SOT-23F Packaged Products

Dear Customer:

This is an announcement of change(s) to products that are currently being offered by Diodes Incorporated.

We request that you acknowledge receipt of this notification within 30 days of the date of this PCN. If you require samples for evaluation purposes, please make a request within 30 days as well. Otherwise, samples may not be built prior to this change. Please refer to the implementation date of this change as it is stated in the attached PCN form. Please contact your local Diodes sales representative to acknowledge receipt of this PCN and for any sample requests.

The changes announced in this PCN will not be implemented earlier than 90 days from the notification date stated in the attached PCN form.

Previously agreed upon customer specific change process requirements or device specific requirements will be addressed separately.

For questions or clarification regarding this PCN, please contact your local Diodes sales representative.

Sincerely,

Diodes Incorporated PCN Team



PRODUCT CHANGE NOTICE

PCN-2133 REV 00

Notification Date:	Implementation Date:	Product Family:	Change Type:	PCN #:
25 th September, 2015	23 rd December, 2015	Discrete / Analog Semiconductors	Additional Assembly & Test Site / Bond Wire Material	2133
		TITLE		

Qualification of "Diodes Zetex Neuhaus GmbH" as an Additional Assembly & Test Site and Conversion to Palladium Coated Copper Bond Wire for Selected SOT-23F Packaged Products

DESCRIPTION OF CHANGE

This PCN is being issued to notify customers that in order to assure continuity of supply, Diodes has qualified "Diodes Zetex Neuhaus GmbH" (NAT) located in Neuhaus, Germany as an additional Assembly & Test Site for selected SOT-23F packaged products using palladium coated copper bond wire.

Full electrical characterization and high reliability testing has been completed or will be completed on representative part numbers to ensure there is no change to device functionality or electrical specifications in the datasheet.

There will be no change to the Form, Fit, or Function of affected products.

Part marking for devices manufactured at NAT is shown on the following page.

IMPACT

Continuity of Supply. No change in datasheet parameters and product performance.

PRODUCTS AFFECTED

Please refer to the attached table

	WEB LINKS
Manufacturer's Notice:	http://www.diodes.com/quality/pcns
For More Information Contact:	http://www.diodes.com/contacts
Data Sheet:	http://www.diodes.com/products

DISCLAIMER

Unless a Diodes Incorporated Sales representative is contacted in writing within 30 days of the posting of this notice, all changes described in this announcement are considered approved.

Rel Date: 5/29/2013



Affected Part Numbers
ZTL431AFFTA
ZTL431BFFTA
ZTL432AFFTA
ZTL432BFFTA
ZXMP2120FFTA
ZXMS6004FFTA(*)
ZXTN04120HFFTA
ZXTN07012EFFTA
ZXTN07045EFFTA
ZXTP05120HFFTA
ZXTP07012EFFTA
ZXTP07040DFFTA
ZXTN19020CFFTA
ZXTN19020DFFTA
ZXTN19060CFFTA
ZXTN19100CFFTA
ZXTP19020CFFTA
ZXTP19020DFFTA
ZXTP19060CFFTA
ZXTP19100CFFTA
ZXTP25020CFFTA
ZXTN08400BFFTA
ZXTP08400BFFTA

Note: (*) remains qualified with gold (Au) wire only

	EXISTING PART MARK	New PART MARKING at NAT
SOT23F Products	ABC	Y: Year: 0~9 W: Week: A~Z: 1~26 a~z: 27~52 z represents 52 & 53 week Note: "I" represents internal code





Description: BJT portfolio SOT23F

Part Number Package Type Package Type Package Size Die Name(s) Die Size (W/L/Thickness) - After Saw Die Process / Technology Wafer FAB/ Location Wafer Diameter Front Metal Type Front Metal Type Front Metal Type (All Layers) Back Metal Thickness (All Layers) Die Conforming Coating (Passivation) Die passivation thickness range No of masks Steps e quantity per package (e.g. single or dual dies) Die Attach Material/ Supplier Bond Wire/Cilip Bond Material/ Supplier Bond Type (at UP) No. of bond over active area Giass Transistion Temp Hond Office (Fight (1) Authority (1) Auth		Accept on 8 Failed/ Sample Size	# of Lots	ZXTN07045EFF S0733F 2.9 x 2.4 x 0.9 FZT651BTXD / C2651BXD 1.067 x 1.067 x 0.178 BIT OFAB/K7AB 6 inch AISICu0.5 3µm /3.5µm TI/Ni/Ag 0.34Q/2.6KQ/3.5KA None N/A 4 1 Epoxy QMI529HT CuPd Thermosonic 12 125°C 127°C/W 127°C 127°		ZXTN19100CFF SOT23F 29 x 2.4 x 0.9 X19N100CT3D / CZ19N100CD 1.067 x 1.067 x 0.178 BIT OFAB/KFAB 6 inch ASI1Cu0.5 6jum TI/NI/Ag 0.3IA/Z ESKA/S SKA OX/Nitride 10000 Å 5 1 Epony QMI529HT CuPd Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6jum TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes 0 2NG 0 2NG 0 2NG 0 2NG 0 150°C N/A 83 °C/W 2XTN19100CFF		ZXTP2S020CFF SOT23F 2-9 x 2-4 x 0.9 X25P20CT3D / CZ25P20CD 0.810 x 0.810 x 0.178 BIT OFAB/KFAB 6 inch AIS1Cu0.5 6 jun TI/Mi/Ag 0.34A/2 EKA/5 SKA Ox/Nitride 10000 Å 6 1 Epoxy QMIS29HT CuPd Thermosonic The	
Package Size Die Name(s) Die Size (W/L/Thickness) - After Saw Die Process / Technology Wafer FAB/ Location Wafer Diameter Front Metal Layer Number/ Thickness Back Metal Type (All Layers) Back Metal Type (All Layers) Back Metal Thickness (All Layers) Die Conforming Coating (Passivation) Die passivation thickness range No of masks Steps quantity per package (e.g. single or dual dies) Die Attach Method (DB Epoxy/Solder Type) Die Attach Material/ Suppiler Bond Type (at Die) Bond Type (at		Failed/ Sample Size	# of Lots	2.9 x 2.4 x 0.9 FZT651BTXD / CZ651BXD 1.067 x 1.067 x 0.178 BIT OFAB/KFAB 6 inch AISICU0.5 3µm /3.5µm TI/NI/Ag 0.3KQ/2.6KQ/5.5KA None N/A 4 1 Epoxy QMIS29HT CuPd Thermosonic Thermosonic Thermosonic 2 125°C 100% Pure Tin Plating Ag selective 3-6µm 43µm TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Ves 0ZNG 0ZNG 0ZNG 150°C 43.77°C/W 83°C/W ZXTN07045EFF		2.9 x 2.4 x 0.9 X19N100CT3D / C219N100CD 1.067 x 1.067 x 0.178 BIT OFAB/KFAB 6 inch AISI1CU0.5 6 jum TI/NI/Ag 0.3KA/2.6KA/5.5KA Ox/Nitride 10000 Å 5 1 Epoxy QMI529HT CuPd Thermosonic Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6 jum 43 jum TB301 K655 (Wieland) Possehl GE130M Hitachl Yes Yes DZNG DZNG DZNG DZNG DZNG DZNG L00°C N/A 83°C/W		2.9 x 2.4 x 0.9 X25P20CT30 / CZ25P20CD 0.310 x 0.310 x 0.178 BT OFAB/KFAB 6 inch AISIC00.5 6 jum TI/Ni/Ag 0.3KA/2.5KA/5.5KA Ox/Nitride 10000 Å 6 1 Epoxy QMI529HT C.QPd Thermosonic Thermosonic Thermosonic Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6jum 38jum TB301 K65 [Wieland) Possehl GE1030M Hitachl Yes Yes OZNG 0ZNG 0ZNG 150°C N/A 83 °C/W	
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Back Metal Thickness (All Layers) Die Conforming Coating (Passivation) Die passivation thickness range No of masks Steps equantity per package (e.g. single or dual dies) Die Attach Method (DB Epoxy/Solder Type) Die Attach Material/ Supplier Bond Yipe (at Die) Bond Type (at Die)		Failed/ Sample Size	# of Lots	O.3KA/2.6KA/S.5KA None N/A 4 1 Epoxy QMIS29HT CuPd Thermosonic 7 125°C		0.3KA/2.6KA/5.5KA OX/Nitride 10000 Å 5 1 Epoxy QMI529HT CuPd Thermosonic Thermosonic Thermosonic 4 125°C 100% Pur Tin Plating Ag selective 3-6jum 43jum TB301 K85 (Wieland) Possehl GE 1030M Hitachl Yes Yes DZNG DZNG DZNG 150°C N/A 83 °C/W		0.3KA/2.6KA/5.5KA Ox/Nitride 10000 Å 6 1 Epoxy QMI529HT CuPd Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6µm 38µm TB301 K55 [Wieland] Possehi GE1030M Hitachi Yes Yes DZNG DZNG DZNG DZNG DZNG SS 'C/W	
Die Conforming Coating (Passivation) Die passivation thickness range No of masks Steps e quantity per package (e.g. single or dual dies) Die Attach Matchd (Die Eposy/Sodier Type) Die Attach Matchd (Die Eposy/Sodier Type) Bond Wire/Clip Bond Material/ Suppiler Bond Wire/Clip Bond Material/ Suppiler Bond Type (at UF) No. of bond over active area Giass Transistion Temp Terminal Finish (Plating) Material Header plating (Die Land Area) Wire Diameter Leadframe Type Leadframe Type Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Max Thermal resistance Junc (case) Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet Eliability and Characterization Testing Bake 125C		Failed/ Sample Size	# of Lots	None N/A 4 1 1 Epoxy QMIS29HT CuPd Thermosonic Thermosonic 2 125°C 100% Pure Tin Plating Ag selective 3-6µm TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes UZNG UZNG UZNG UZNG UZNG UZNG UZNG UZNG		Ox/Nitride 10000 Å 5 1 Epoxy QMIS29HT CuPd Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6jum TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes 02NG 02NG 02NG 02NG		Ox/Nitride 10000 Å 6 1 1 Epoxy QMIS29HT CuPd Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6jum 38jum Tis301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes 0ZNG 0ZNG 150°C N/A 83°C/W	
No of masks Steps e quantity per package (e.g. single or dual dies) Die Attach Materiol (DB Eposy/Solder Type) Die Attach Material/ Supplier Bond Wire/Clip Bond Material/ Supplier Bond Type (at UP) Terminal Finish (Plating) Material Header plating (Die Land Area) Wire Diameter Leadframe Type Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (case) Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet Eliability and Characterization Testing Bake 125C		Failed/ Sample Size	# of Lots	4 1 Epoxy QMIS29HT CuPd Thermosonic Thermosonic 2 125°C 125°C 100S Pure Tin Plating Ag selective 3-6µm 43µm TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Ves 02NG 02NG 150°C 43.77 °C/W 83 °C/W 2XTN07045EFF		5 1 Epoxy QMI529HT CuPd Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6µm 43µm TB301 K65 (Wieland) Possehl GE 1030M Hitachl Yes UZNG DZNG DZNG DZNG DZNG DZNG DZNG S3 °C/W		10000 Å 6 1 Epoxy QMIS29HT CuPd Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6µm TB301 K65 (Wieland) Possehl GE 1030M Hitachl Yes DZNG DZNG DZNG 150°C N/A 83 °C/W	
e quantity per package (e.g. single or dual dies) Die Attach Method (DB Epoxy/Solder Type) Die Attach Method (DB Epoxy/Solder Type) Die Attach Material/ Suppiler Bond Wire/Clip Bond Material/ Suppiler Bond Type (at Die) Bond Type (at Die) Bond Type (at LF) No. of bond over active area Gisss Transistion Temp Terminal Finish (Plating) Material Header plating (Die Land Area) Wire Diameter Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet Eliability and Characterization Testing Bake 125C		Failed/ Sample Size	# of Lots	1 Epoxy QMIS29HT CuPd Thermosonic Thermosonic 2 125°C 100% Pure Tin Plating Ag selective 3-6µm A3µm T8301 K65 (Wieland) Possehl GE1030M Hitachi Yes DZNG DZNG DZNG 150°C 43.77°C/W 83°C/W ZXTN07045EFF		1 Epoxy QMIS29HT CuPd Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-Gµm TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Ves 0ZNG 0ZNG 0ZNG 150°C N/A 83°C/W		1 Epoxy QMIS29HT CuPd Thermosonic Thermosonic T125°C 100% Pure Tin Plating Ag selective 3-5µm 38µm T8301 K55 (Wieland) Possehl GE1030M Hitachi Yes Ves DZNG 02NG 150°C N/A 83 °C/W	
Die Attach Method (DB Epoxy/Solder Type) Die Attach Material/ Suppiler Bond Wire/Clip Bond Material/ Suppiler Bond Type (at Die) Bond Type (at Ue) Terminal Finish (Plating) Material Header plating (Die Land Area) Wire Dlameter Leadframe Type Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (case) Max Thermal resistance Junc (asse) Max Thermal resistance Junc (asse) Hassibility and Characterization Testing Test Conditions Bake 125C		Failed/ Sample Size	# of Lots	Epoxy QMIS29HT CUPd Thermosonic Thermosonic 2 125°C 12		Epoxy QMIS29HT CuPd Thermosonic Thermosonic 4 125°C Pure Tin Plating Ag selective 3-6jum 43jum TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes 0ZNG 0ZNG 0ZNG 150°C N/A 83 °C/W		Epoxy QMIS29HT CUPd Thermosonic Thermosonic 4 125°C 12	
Die Attach Material/ Supplier Bond Wire/Clip Bond Material/ Supplier Bond Wire/Clip Bond Material/ Supplier Bond Type (at Ue) Glass Transistion Temp Terminal Finish (Plating) Material Header plating (Die Land Area) Wire Diameter Leadframe Type Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound (Ves/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Max Thermal resistance Junc (case) Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet eliability and Characterization Testing Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	QMIS29HT CuPd Thermosonic Thermosonic 2 125°C 100% Pure Tin Plating Ag selective 3-6µm 43µm T8301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes 02NG 02NG 02NG 150°C 43.77°C/W 83°C/W 2XTN07045EFF		CMIS29HT CuPd Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6µm 43µm TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes 0ZNG 0ZNG 0ZNG 150°C N/A 83°C/W		QMis29HT CuPd Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6jum 38jum Tis301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes 02NG 02NG 02NG 150°C N/A 83 °C/W	
Bond Wire/Clip Bond Material/ Supplier Bond Type (at Die) Bond Type (at LP) No. of bond over active area Giss Transistion Temp Terminal Finish (Plating) Material Header plating (Die Land Area) Wire Diameter Leadframe Type Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (case) Max Thermal resistance Junc (anilbent) DataSheet Pliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	CuPd Thermosonic Thermosonic 2 125°C 100% Pure Tin Plating Ag selective 3-6µm Ag selective 3-6µm TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes DZNG DZNG DZNG 150°C 43.77 **C/W 2XTN07045EFF		CuPd Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6µm 43µm TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes DZNG DZNG DZNG DZNG 150°C N/A 83°C/W		CuPd Thermosonic Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-6jun 38jum TB301 K65 (Wieland) Possehl GE1030M Hftachl Yes DZNG 0ZNG 150°C N/A 83°C/W	
Bond Type (at Die) Bond Type (at UP) No. of bond over active area Gisss Transistion Temp Terminal Finish (Plating) Material Header plating (Die Land Area) Wire Diameter Leadframe Type Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (case) Max Thermal resistance Junc (ambent) DataSheet eliability and Characterization Testing Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	Thermosonic Thermosonic 2 125°C 125°C 100°R Pure Tin Plating Ag selective 3-6µm 43µm 18301 K65 (Wieland) Possehl GE1030M Hitachl Yes Ves 02NG 02NG 150°C 43.77°C/W 83°C/W 2XTN07045EFF		Thermosonic Thermosonic 4 125°C 100% pure Tin Plating Ag selective 3-6µm 43µm TB301 K65 (Wieland) Possehl GE 1030M Hitachl Yes UZNG DZNG DZNG DZNG DZNG DZNG S3 °C/W		Thermosonic Thermosonic 4 125°C 100°N pure Tin Plating Ag selective 3-6jum 38jum TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes 02NG 02NG 02NG 150°C N/A 83°C/W	
No. of bond over active area Giass Transistion Temp Terminal Finish (Plating) Material Header plating (bic Land Area) Wire Diameter Leadframe Pipe Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (analbent) DataSheet Eliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	2 125°C 100% Pure Tin Plating Ag selective 3-6µm 43µm 178301 K65 (Wieland) Possehl GE1030M Hitachl Yes USANG DZNG DZNG DZNG DZNG SSO"C 43.77°C/W 83°C/W ZXTN07045EFF		Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-Gµm 43µm TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Ves 0ZNG 0ZNG 150°C N/A 83°C/W		Thermosonic 4 125°C 100% Pure Tin Plating Ag selective 3-5µm 38µm T8301 K55 (Wieland) Possehl GE1030M Hitachi Yes DZNG 0ZNG 150°C N/A 83°C/W	
Giass Transistion Temp Terminal Finish (Plating) Material Header plating (Die Land Area) Wire Diameter Leadframe Type Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site (Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet eliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	125°C 100% Pure Tin Plating Ag selective 3-6µm 43µm 18301 K65 (Wieland) Possehl GE1030M Hitachl Yes UNG DZNG DZNG 150°C 43.7° C/W 83° C/W ZXTN07045EFF		125°C 100% Pure Tin Plating Ag selective 3-6µm 43µm TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes OZNG DZNG DZNG 150°C N/A 83°C/W		125°C 100% Pure Tin Plating Ag selective 3-Gµm 38µm T8301 K65 (Wieland) Possehi GE1030M Hitachi Yes UZNG 0ZNG 150°C N/A 83°C/W	
Terminal Finish (Plating) Material Header plating (Die Land Area) Wire Diameter Leadframe Type Leadframe Material Lead Frame Manufacturer Moiding Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet Pliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	100% Pure Tin Plating Ag selective 3-6µm Ag selective 3-6µm T8301 K65 (Wieland) Possehl GE1030M Hitachi Yes Yes DZNG DZNG 150°C 43.77 **C/W 83 **C/W ZXTN07045EFF		100% Pure Tin Plating Ag selective 3-6µm Ag selective 3-6µm TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes DZNG DZNG DZNG DZNG 150°C N/A 83 °C/W		100% Pure Tin Plating Ag selective 3-6jum Ag selective 3-6jum T8301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes DZNG OZNG 150°C N/A 83°C/W	
Header plating (Die Land Area) Wire Diameter Leadframe Type Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet eliability and Characterization Testing Test Conditions Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	Ag selective 3-6µm 43µm 18301 K65 (Wieland) Possehi GE1030M Hitachi Yes DZNG DZNG DZNG DZNG 150°C 43.77 °C/W 83 °C/W ZXTN07045EFF		Ag selective 3-6µm 43µm TB301 K65 (Wieland) Possehl GE1030M Hitachl Yes DZNG DZNG DZNG L50°C N/A 83 °C/W		Ag selective 3-6µm 38µm TB301 K65 [Wieland] Possehl GE1030M Hitachl Yes DZNG DZNG DZNG DZNG 150°C N/A 83°C/W	
Wire Diameter Leadframe Type Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet eliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	43µm T8301 K65 (Wieland) Possehl GE1030M Hitachl Yes 102NG D2NG D2NG 150°C 43.77 *C/W 83 *C/W ZXTN07045EFF		43µm TB301 K65 (Wieland) Possehl GE1930M Hitachl Yes Ves OZNG DZNG 150°C N/A 83 °C/W		38µm T8301 K65 (Wieland) Possehl GE1030M Hitachl Yes Ves OZNG 0ZNG 150°C N/A 83 °C/W	
Leadframe Material Lead frame Material Lead frame Material Lead frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet eliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	TB301 K65 (Wieland) Possehl GE1030M Hitachi Yes Yes DZNG DZNG DZNG 150°C 43.77 **C/W ZXTN07045EFF		TB301 K65 (Wieland) Possehl GE 1030M Hitachl Yes Yes DZNG DZNG DZNG 150°C N/A 83 °C/W		T8301 K65 (Wieland) Possehl GE1030M Hitachl Yes Yes DZNG DZNG DZNG DXNG AS3 "C/W 83 "C/W	
Leadframe Material Lead Frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet eliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	K65 (Wieland) Possehl GE1030M Hitachl Yes Ves DZNG DZNG 150°C 43.77 °C/W 83 °C/W ZXTN07045EFF		K65 (Wieland) Possehl GE1030M Hitachl Yes Yes DZNG DZNG 150°C N/A 83 °C/W		K65 (Wieland) Possehi GE1030M Hitachi Yes Yes DZNG DZNG DZNG 150°C N/A 83 °C/W	
Lead Frame Manufacturer Molding Compound Type Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet Pliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	Possehl GEJ030M Hitachl Yes Yes DZNG DZNG DZNG 150°C 43.77 °C/W 83 °C/W ZXTN07045EFF		Possehl GE 1030M Hitachl Yes Yes DZNG DZNG DZNG L50°C N/A 83 °C/W		Possehi GE1030M Hitachi Yes Yes DZNG DZNG DZNG 150°C N/A 83 °C/W	
Mold Compound Material Manufacturer Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site (Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet eliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	Hitachi Yes Yes DZNG DZNG 150°C 43.77 °C/W 83 °C/W ZXTN07045EFF		Hitachi Yes Yes DZNG DZNG DZNG 150°C N/A 83 °C/W		Hitachi Yes Yes DZNG DZNG DZNG 150°C N/A 83 °C/W	
Green Compound (Yes/No) Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet Pliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	Yes Yes DZNG DZNG DZNG 150°C 43.77 °C/W 83 °C/W ZXTNO7045EFF		Yes Yes DZNG DZNG DSNG 150°C N/A 83 °C/W		Yes Yes DZNG DZNG DZNG 150°C N/A 83 °C/W	
Lead-Free (Yes/No) Assembly Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet eliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	Ves DZNG DZNG DZNG 150°C 43.77 °C/W 83 °C/W ZXTN07045EFF		Yes DZNG DZNG 150°C N/A 83 °C/W		Yes DZNG DZNG 150°C N/A 83 °C/W	
Assembly Site/ Location Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet eliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	D2NG D2NG 150°C 43.77 °C/W 83 °C/W ZXTN07045EFF		DZNG DZNG 150°C N/A 83 °C/W		DZNG DZNG 150°C N/A 83 °C/W	
Test Site/ Location Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet Pliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	DZNG 150°C 43.73°C/W 83°C/W ZXTN07045EFF		0ZNG 150°C N/A 83 °C/W		DZNG 150°C N/A 83 °C/W	
Max Junction Temp Max Thermal resistance Junc (case) Max Thermal resistance Junc (amibent) DataSheet eliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	150°C 43.77 °C/W 83 °C/W ZXTN07045EFF		150°C N/A 83 °C/W		150°C N/A 83 °C/W	
Max Thermal resistance Junc (amibent) DataSheet Pliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	43.77 °C/W 83 °C/W 2XTN07045EFF	Day Mr	N/A 83 *C/W		N/A 83 *C/W	
DataSheet eliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	ZXTN0704SEFF	Day Ab	83 °C/W		83 °C/W	
eliability and Characterization Testing Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots		Sec. in	ZXTN19100CFF		ZXTP25020CFF	
Test Conditions Bake 125C	THE PURE	Failed/ Sample Size	# of Lots	X = Test Needed	Partil	III CHENTA			
Bake 125C	Duration / Limits	Failed/ Sample Size	# of Lots	X = Test Needed	Sar. in	AL BELLMAN			
		per Lot			Results Pass/Fail	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail
	24 Hrs	SMD only,		X	pass	X	pass	X	pass
3081 03C, 8376 RH	168Hrs	for Test #7,	3 Assembly lots	X	pass	X	pass	X	pass
IR reflow 260C	3 cycles	8, 9 & 10		x	pass	×	pass	X	pass
MIL-STD-750 METHOD 2071	PER SPEC	All qualifica	tion parts submitted for testing	×	pass	*	pass	×	pass
-55C, 25C, 85C, 125C, 150C	Operating Range,	0/25	3 wafer lots						2000
-550, 250, 650, 1250, 1500	Per Data Sheet		3 Water lots	X	pass	×	pass	×	pass
=150°C or Max Ti, Vd=100%, PER MIL-STD-750-	168 Hrs	0/77	22 80	X	pass	X	pass	X	pass
1	500 Hrs		3 wafer lots				pass		pass
									pass
Ta=-55C to 150C or Max Tj, PER JESD22A-104	500 Cycles		3 Assembly lots						pass
	1000 Cycles	0/77		×	pass	X	pass	X	pass
Ta=121°C 15PSIG 100%RH; PER JESD22- A102	96 Hrs	0/77	3 Assembly lots	x	pass	x	pass	x	pass
	168 Hrs	0/77	man men .	x	pass	×	pass	x	pass
	500 Hrs	0/77	3 wafer lots	x	pass	X	pass	X	pass
(Contractor Ma)	1000 Hrs	0/77		X	pass	X	pass	X	pass
MIL-STD-750 Method 1027 (N/A for TVF)	70.00 a 1	0.000	2 mafes late	X	pass	X	pass	X	pass
mile 310-750 Method 1037 (N/A for TVS)	7560 Cycles	0/77	3 water lots	X	pass	X	pass	X	pass
AEC Q101-004 SEC. 4	and cycles		1 Assembly lot						pass
500000000000000000000000000000000000000	Package Outline		- analyzerosa es		Toloron I		Licewo 1		pass
	The state of the s	DASS THE CO.	1 1907 MAD NO.	0.07	31.000	250	2201145		pass
	5 Seconds								pass
and the second s	3 33001103	Proceedings from	TO SEE VICES IN THE		pass		pass	×	14033
MIL-STD-750 METHOD 2037 (JESD22-B116B)	Cpk>1.66	0/ min of 5	1 Assembly lot	The same of the sa			4 255		pass
MIL-STD-750 METHOD 2037 (JESD22-B116B)				-	0000		9377		
	Cpk>1.66 Cpk>1.66 Cpk>1.66	0/ min of 5 0/ min of 5 0/5	1 Assembly lot 1 Assembly lot 1 Assembly lot	x x	pass pass	×	pass pass	x x	pass pass pass
Ta-	1 -55C to 150C or Max Tj, PER IESD22A-104 a=121°C 15PSIG 100%RH; PER JESD22- A102 b=85oC, 85% R.H., 80% Maximum VCBO; PER JESD22A-101 BIL-STD-750 Method 1037 (N/A for TVS)	1 500 Max 1], VB-1007, PER MIL-310-790 500 Mrs 1 1000 Mrs	Solution Solution	Solid Nat 1, Val 1004, Pet Nill S10-/50	SOO NMS 1, VB-1007, PER MIL-S107-30	South Sout	1	Soo Hrs 1,00-1004 Soo Hrs 1,00-1004 Soo Hrs 1,0000 Hrs 1,0000 Hrs 0,777 1,0	Sol Nrs 1, Va-100x, Per Mit-S10-70 Sol Nrs 0/77 3 wafer lots X pass X

Certificate of Design, Construction & Qualification



Description: ZTL431AFF CuPd wire bonding conversion qual

				Qual Device 1	
	Part Number			ZTL431AFF	
Ung 1900 of the Late	Package			SOT23F	_
	MSL Level			MSL1	⊢
	Package Size Die Name(1)			2.9 x 2.4 x 0.9	-
	Die Size (W/L/Thickness			ZTL43101F 0.54 x 0.51 x 0.229	_
	Die Process / Technology			analog IC	
	Wire Bond Material (Au, Cu, Al)			CuPd	
	Wire Diameter	The state of the s	1	25μm	_
	Wire Bond Material (Au, Cu, Al)		1	CuPd	_
	Wire Diameter		1	25μm	_
A DECEMBER OF THE RESIDENCE	Wafer FAB	VICE TO FAIR		OFAB	
	Wafer Diameter			6"	
	Bond Type (at Die)			Ball	-
	Bond Type (at LF)		1	Wedge	
THE RESIDENCE OF THE PARTY OF T	No. of bond over active area	THE SHARE STATE OF THE SHARE STA	1	0	
	Glass Transistion Temp			125 degree C	
	Lead Material Manufacture		1	Possehl	
THE RESERVE	Header plating (Die Land Area)		1	Ag	
1 5 5 10 5	Max Junction Temp		1	125 degree C	
	Max Thermal resistance Junc (case)	COLUMB III	1	NA	
	Max Thermal resistance Junc (amibent)	a transfer of	1	138°C/W @ PDIS=900mW	
	Front Metal Type		1 1	AlCu0.5	
	Back Metal Type (All Layers)		1	Ti/Ni/Ag	
	Back Metal Thickness (All Layers)			0.3KA/2.6KA/5.5KA	
	Die Conforming Coating	E ELVI VIIIV EV		Ox/Nitride	
THE RESERVE	Die passivation thickness range	The state of the		10000 Å	
	No of masks Steps	II TE IN VAV	1	13	
ALCOHOLD BY	DB Epoxy/Solder Type			Ероху	
CALLES AND AND ADDRESS OF THE PARTY OF THE P	Die Attach Material			QMI529HT	
	Front Metal Thickness		1	2μm	
	Leadframe Type			Matte Sn over Cu	
	Leadframe Material	TWING TO BE		K65 (Wieland)	
	Molding Compound Type	A SECTION		GE1030M	
A-II VI -II	Green Compound (Yes/No)			Yes	
	Lead-Free (Yes/No)			Yes	
	Assembly Site			NAT	
	FT Test Site		1	NAT	
	Realibility Test Site			DZUK	
	DataSheet	A STATE OF THE PARTY OF THE PAR		ZTL431/ZTL432	
	Realibility Testing				
Test	Test Conditions	Duration / Limits	Fall/SS	X = Test Needed	
MSL1 Pre-cond	Bake 125C	24 Hrs	0/154	X	pass
	Soak 85C, 85% RH	168Hrs	0/154	×	pass
	IR reflow 260C	3 cycles	0/154	×	pass
20000000		168 Hrs	0/77	×	pass
HTOL	Tj>125C, 100% Vcc	500 Hrs	0/77	×	pass
		1000 Hrs	0/77	×	pass
XTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	PER SPEC	All qualification parts submitted for testing	*	pass
2000		168 cycles	0/77	X	pass
PTC	-65C-150C	500 cycles	0/77	X	pass
		1000 cycles	0/77	X	pass
	Temperature,	Ta=85oC, 85% R.H.,	168 Hrs	X	pass
РТНВ	Humidity and	80% Maximum	500 Hrs	X	pass
	Bias (THB)	VCBO; PER	1000 Hrs	X	pass
2500004	NORTH TOWNS WAY	168 Hrs	0/77	X	pass
HS	Tamb=150degC	500 Hrs	0/77	X	pass
		1000 Hrs	0/77	X	pass
PCT/AC	T=121°C 15PSIG 100%RH	96 Hrs	0/77	X	pass
WBP	MIL-STD883-2011	Cpk>1.66	0/30	X	pass
WBS	JESD22-B116B	Cpk>1.66	0/30	X	pass
PD	JESD22-B100B	Package Outline	0/30	×	pass
Solderability	245C +0/5C	5 Seconds	0/10	X	pass
RSHD	260C;10 sec;	1 cycle	0/45	x	pass
Remark:					
Summary: Submitted By:	David Cheng 10/10/2012				





Description: Conversion of SOT23F ZXMP2120FFTA to Copper wire (PCN2133)

	Category	Doct W				Qual Device 1	
	Product	Part Number				ZXMP2120FF	
	Assembly	Package Type		ł	1	SOT23F	
7.00	Assembly Wafer	Package Size Die Name(s)		ł		2.9mm x 2.4mm x0.9mm ZVP2120T3D	-
	Wafer	Die Size (W/L/Thickness) - After Saw				1.035*1.035mm*0.229µm	
	Wafer	Wafer FAB/ Location				OFAB	_
na	Wafer	Wafer Diameter				150mm	
	Wafer	Front Metal Type				3µm AlSiCu0.05	-
	Wafer Wafer	Back Metal Type (All Layers) Back Metal Thickness (All Layers)		l		TINIAg 300Å/2600Å/5500Å	\vdash
A	Wafer	Die Conforming Coating (Passivation)		l		Nitrid	
	Wafer	Die passivation thickness range		1		1000Å	
	Wafer	No of masks Steps		1		7	
	Assembly	Die quantity per package (e.g. single or dual dies)		1		single	
13.00	Assembly Assembly	Die Attach Method (DB Epoxy/Solder Type) Die Attach Material/ Supplier		l		Epoxy QMI529HT/Henkel	\vdash
	Assembly	Bond Wire/Clip Bond Material/ Supplier		1		CuPd/Heraus	-
	Assembly	Bond Type (at Die)		1		Ball	
T)	Assembly	Bond Type (at LF)				Wedge	
	Assembly	No. of bond over active area				1 (Source)	
	Assembly Assembly	Glass Transistion Temp Terminal Finish (Plating) Material		ł		125 Pure Tin	\vdash
N.	Assembly	Header plating (Die Land Area)		ı		1.34mm x 1.25mm	\vdash
	Assembly	Wire Diameter		i		25μm	
	Assembly	Leadframe Type	AND DEED			TB301	
	Assembly	Leadframe Material				K65	_
	Assembly Assembly	Lead Frame Manufacturer Molding Compound Type				Possehl GE1030M	
	Assembly	Mold Compound Material Manufacturer		i		Hitachi	
	Assembly	Green Compound (Yes/No)		l		Yes	
	Assembly	Lead-Free (Yes/No)		l		Yes	
	Assembly	Assembly Site/ Location				DZNG	
	Assembly	Test Site/ Location		l		DZNG	
	Product Product	Max Junction Temp Max Thermal resistance Junc (case)				150°C 44K/W	-
	Product	Max Thermal resistance Junc (amibent)		1		125K/W	
	Product	DataSheet				ds33601	
		Reliability and Characterization Testing					
(C- (O1 (O)	Test	Test Conditions	Duration / Limits	Failed/ Sample Size per Lot	# of Lots	X = Test Needed	Pass
		Bake 125C	24 Hrs			X	Pi
	AACL1 Dec	Soak 85C, 85% RH		SMD only,			P:
į.	MSL1 Pre- conditioning	Soak 85C, 85% RH IR reflow 260C	168Hrs 3 cycles	SMD only, for Test #7, 8, 9 & 10	3 Assembly lots	x x	
	conditioning EXTERNAL VISUAL	7/	168Hrs	for Test #7, 8, 9 & 10	ion parts submitted for	X	Р
	conditioning EXTERNAL VISUAL (EV)	IR reflow 260C	168Hrs 3 cycles PER SPEC	for Test #7, 8, 9 & 10		X X	Р
	conditioning EXTERNAL VISUAL	IR reflow 260C	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet	for Test #7, 8, 9 & 10 All qualificat 0/25	ion parts submitted for	x x x	P P
	EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV)	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs	for Test #7, 8, 9 & 10 All qualificati 0/25	ion parts submitted for testing 3 wafer lots	x x x	P P
	EXTERNAL VISUAL (EV) PARAMETRIC	IR reflow 260C MIL-STD-750 METHOD 2071	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77	ion parts submitted for testing	x x x x	P P
	EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs	for Test #7, 8, 9 & 10 All qualificati 0/25	ion parts submitted for testing 3 wafer lots 3 wafer lots	x x x	P P P P
	EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV)	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 168 Hrs 500 Hrs	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots	x x x x x x x x x x	P P P P
	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots	x x x x x x x x	PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots	x x x x x x x x x x x x x x x x x x	PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
3 1 5	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only)	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=55C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22-	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 168 Cycles	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 wafer lots	x x x x x x x x x	P P P P P P P P P P P P P P P P P P P
2 3 4 5 7	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max Tj, Vg=100%, PER JESD22 A-108 Ta=55C to 150C or Max Tj, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22-A102	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots	x x x x x x x x x x x x x x x x x x x	P P P P P P P P P P P P P P P P P P P
i i	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=-55C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles 96 Hrs	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots	x x x x x x x x x x x x x x x x x x x	P P P P P P P P P P P P P P P P P P P
5	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max Tj, Vg=100%, PER JESD22 A-108 Ta=55C to 150C or Max Tj, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22-A102	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Cycles 96 Hrs 168 Hrs 500 Cycles 1000 Cycles 96 Hrs	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots	x x x x x x x x x x x x x x x x x x x	P: P
i i i	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=-55C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 1000 Cycles 1000 Cycles 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots	x x x x x x x x x x x x x x x x x x x	P P P P P P P P P P P P P P P P P P P
ilt	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max Tj, Vg=100%, PER JESD22 A-108 Ta=-55C to 150C or Max Tj, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Cycles	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 3 wafer lots	x x x x x x x x x x x x x x x x x x x	P. P
i i i i i i i i i i i i i i i i i i i	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL DPA	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max Tj, Vg=100%, PER JESD22 A-108 Ta=-55C to 150C or Max Tj, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 1000 Cycles 1000 Cycles 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots	x x x x x x x x x x x x x x x x x x x	P. P
i i i i i i i i i i i i i i i i i i i	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD)	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max Tj, Vg=100%, PER JESD22 A-108 Ta=-55C to 150C or Max Tj, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 1000 Cycles 1000 Cycles 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 3 wafer lots	x x x x x x x x x x x x x x x x x x x	P. P
))))	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL DPA Package Physical	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max Tj, Vg=100%, PER JESD22 A-108 Ta=-55C to 150C or Max Tj, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 1000 Cycles 1000 Cycles 168 Hrs 500 Hrs 1000 Hrs 158 Hrs 500 Cycles 15000 Cycles	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 3 wafer lots 1 Assembly lot	x x x x x x x x x x x x x x x x x x x	P P P P P P P P P P P P P P P P P P P
3 3 7 7 7 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD) RESISTANCE TO	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max Tj, Vg=100%, PER JESD22 A-108 Ta=-55C to 150C or Max Tj, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4 JESD22-B100	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 1000 Hrs 168 Cycles 500 Cycles 1000 Cycles 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 1000 Cycles	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 Assembly lot 1 Assembly lot	x x x x x x x x x x x x x x x x x x x	P. P
3 1 5	CONDITIONING EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH)	IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=-55C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4 JESD22-B100 JESD22 A-111 (SMD), B-106 (PTH) (260C @30S)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Cycles 15000 Cycles	for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/70 0/77 0/70 0/	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 Assembly lot 1 Assembly lot 1 Assembly lot	x x x x x x x x x x x x x x x x x x x	P. P

Certificate of Design, Construction & Qualification



Description: Transfer SO123F products to DZNG and qualify Au Wire

	Category	1				Qual Device 1 - Lot 1		Qual Device 1 - Lot 2		Qual Device 1 - Lot 3	
	Product	Part Number		$\overline{}$		ZXMS6004FF		ZXMS6004FF		ZXMS6004FF	
_	Assembly	Package Type		1		SOT23F		SOT23F		SOT23F	
100	Wafer	Die Name(s)	ARTICLE STREET	1		ZXMS6004T3D		ZXMS6004T3D		ZXMS6004T3D	
	Wafer	Die Size (W/L/Thickness) - After Saw	OF THE	ı		1.07 mm x 1.07 mm x 0.203		1.07 mm x 1.07 mm x 0.203		1.07 mm x 1.07 mm x 0.203 mm	
_	Wafer	Die Process / Technology		ł		n-CHANNEL SVMOS		N-CHANNEL SVMOS		N-CHANNEL SVMOS	
	Wafer	Wafer FAB/ Location		1		OFAB		OFAB		OFAB	_
124	Wafer	Wafer Diameter		1		150mm		150mm		150mm	
	Wafer	Front Metal Type		1		TITIN+AlSi1Cu0.5		TITIN+AISI1Cu0.5		TiTiN+AlSi1Cu0.5	
	Wafer	Front Metal Layer Number/ Thickness		1		2µm		2µm		2μm	
11-	Wafer	Back Metal Type (All Layers)		1		TiNiAg		TINIAg		TINIAg	
	1	and the second second second	V 100 TO 100	ı		Ti: 300Å		Ti: 300Å		Ti: 300Å	
	Wafer	Back Metal Thickness (All Layers)	V-110 - 1X5	ı		Ni: 2600Å Ag: 5500Å		Ni: 2600Å		Ni: 2600Å	1
	Wafer	Die Conforming Coating (Passivation)		ł		Nitride		Ag: 5500Å Nitride		Ag: 5500Å Nitride	
	Wafer	Die passivation thickness range	Charles and the last of the la	1		10000 Å		10000 Å		10000 Å	_
	Wafer	No of masks Steps		1		9		9		9	
	Assembly	Die quantity per package (e.g. single or dual dies)	INCHES IN	1		1		1		1	
-10	Assembly	Die Attach Method (DB Epoxy/Solder Type)		1		Ероху		Epoxy		Ероху	
-	Assembly Assembly	Bond Wire/Clip Bond Material/ Supplier		ł		Au Thermosonic - ball bond		Au Thermosonic - ball bond		Au	
	Assembly	Bond Type (at Die) Bond Type (at LF)		1		Thermosonic-wedge bond		Thermosonic-wedge bond		Thermosonic - ball bond Thermosonic-wedge bond	_
	Assembly	No. of bond over active area	DOM: NO	1		5		5		5	
311	Assembly	Glass Transistion Temp		1		125 °C		125 °C		125 °C	
	Assembly	Terminal Finish (Plating) Material	WHITE SHEET	1		100% Pure Tin Plating		100% Pure Tin Plating		100% Pure Tin Plating	
330	Assembly	Header plating (Die Land Area)		1		Ag selective 3-6µm		Ag selective 3-6µm		Ag selective 3-6µm	
-	Assembly	Wire Diameter	The same of the sa	1		25 um		25 um		25 um	
	Assembly Assembly	Leadframe Type Leadframe Material	-	ł		TB301 K65		TB301		TB301	
	Assembly	Lead Frame Manufacturer	-47	1		Possehl Possehl		K65 Possehi		K65 Possehl	_
110	Assembly	Molding Compound Type	THE STREET	1		GE1030M		GE1030M		GE1030M	
	Assembly	Mold Compound Material Manufacturer		1		Hitachi		Hitachi		Hitachi	
	Assembly	Green Compound (Yes/No)		1		Yes		Yes		Yes	
117	Assembly	Lead-Free (Yes/No)		1		Yes		Yes		Yes	
11	Assembly	Assembly Site/ Location		ł		NAT (DZNG)		NAT (DZNG)		NAT (DZNG)	
	Assembly Product	Test Site/ Location Max Junction Temp		ł		NAT (DZNG)		NAT (DZNG)		NAT (DZNG)	
	Product	Max Junction Temp Max Thermal resistance Junc (case)		1		150 °C 44 °C/W		150 °C 44 °C/W		150 °C 44 °C/W	
4.1	Product	Max Thermal resistance Junc (amibent)	200	1		83 °C/W		83 °C/W		83 °C/W	
	Product	DataSheet		1		DS#: 33609		DS#: 33609		DS#: 33609	
		Reliability and Characterization Testing									
# in AEC- Q101 (D)	Test	Test Conditions	Duration / Limits	Accept on # Failed/ Sample Size per Lot	if of Lots	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail
_		Bake 125C	24 Hrs	SMD only,			Pass	x	Pass		Pass
2	MSL1 Pre-conditioning	Soak 85C, 85% RH	168Hrs	for Test #7,	3 Assembly lots	X	Pass	×	Pass	×	Pass
	Section Assessment None	IR reflow 260C	3 cycles	8,9 & 10	STADSCHANDE II	X	Pass	*- ID	Pass	*	Pass
100											
3	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	PER SPEC	All qualificat	tion parts submitted for testing	* 11	Pass		Pass	×	Pass
3	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	0.131.1320	All qualificat	testing	* 1	Pass		Pass	×	Pass
70	PARAMETRIC	The transfer of the	Operating Range,		testing		1.776-0				
4	-Coolean Market College	MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C	0.131.1320	All qualificat		*	Pass Pass	×	Pass Pass	x	Pass Pass
4	PARAMETRIC VERIFICATION (PV)	-55C, 25C, 85C, 125C, 150C	Operating Range,		testing		1.776-0				
70	PARAMETRIC	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-	Operating Range, Per Data Sheet 168 Hrs 500 Hrs	0/25 0/77 0/77	testing	*	Pass	×	Pass	*	Pass
4	PARAMETRIC VERIFICATION (PV)	-55C, 25C, 85C, 125C, 150C	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs	0/25 0/77 0/77 0/77	testing 3 wafer lots	x x x	Pass Pass Pass Pass	x x x x	Pass Pass Pass Pass	x x x x	Pass Pass Pass Pass
4	PARAMETRIC VERIFICATION (PV) HTRB	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max T _J , Vd=100%, PER MIL-STD-750-1	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs	0/25 0/77 0/77 0/77 0/77	3 wafer lots 3 wafer lots	x x x x	Pass Pass Pass Pass Pass	X X X X	Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass
4	PARAMETRIC VERIFICATION (PV)	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs	0/25 0/77 0/77 0/77 0/77 0/77	testing 3 wafer lots	X X X X	Pass Pass Pass Pass Pass Pass	x x x x x	Pass Pass Pass Pass Pass Pass Pass	x x x x x	Pass Pass Pass Pass Pass Pass Pass
5	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only)	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JES022 A-108	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles	0/25 0/77 0/77 0/77 0/77	testing 3 wafer lots 3 wafer lots 3 wafer lots	x x x x	Pass Pass Pass Pass Pass	X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
4	PARAMETRIC VERIFICATION (PV) HTRB	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max T _J , Vd=100%, PER MIL-STD-750-1	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	3 wafer lots 3 wafer lots	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x	Pass Pass Pass Pass Pass Pass Pass
5	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only)	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=-65C to 150C or Max TJ, PER JESD22A-104	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77	testing 3 wafer lots 3 wafer lots 3 wafer lots	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x	Pass Pass Pass Pass Pass Pass Pass Pass
5	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only)	-SSC, 2SC, 8SC, 12SC, 15OC Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max Tj, Vg=100%, PER JES022 A-108 Ta=65C to 150C or Max Tj, PER JES022A-104 Ta=121°C 15PSiG 100NRH; PER JES022	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	testing 3 wafer lots 3 wafer lots 3 wafer lots	X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X	Pass Pass Pass Pass Pass Pass Pass Pass
4 5 6	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750- 1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=-65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22- A102	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Cycles 1000 Cycles 96 Hrs	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	3 wafer lots	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass
4 5 6 7 8	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JES022 A-108 Ta=65C to 150C or Max TJ, PER JES022A-104 Ta=121°C 15PSIG 1009RH; PER JES022- Ta=85°C, 85% RH, with 80% Maximum Reverse	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles 1000 Cycles	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	3 wafer lots	X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass
4 5 6 7 8	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750- 1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=-65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22- A102	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 100 Hrs 1000 Hrs 1000 Hrs 1000 Cycles 500 Cycles 1000 Cycles 96 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	3 wafer lots 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass
4 5 6 7 8 8 9 alt	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB	-5SC, 2SC, 8SC, 12SC, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=6SC to 15DC or Max TJ, PER JESD22A-104 Ta=121°C 15PSiG 100%RH; PER JESD22A-104 Ta=8SPC, 85% RH, with 80% Maximum Reverse Blus, JESD22A-101	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Hrs 168 Hrs 500 Hrs	0/25 0/77	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass
4 5 6 7	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JES022 A-108 Ta=65C to 150C or Max TJ, PER JES022A-104 Ta=121°C 15PSIG 1009RH; PER JES022- Ta=85°C, 85% RH, with 80% Maximum Reverse	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 1000 Hrs 1000 Hrs 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Hrs 168 Hrs 168 Hrs 168 Hrs 1000 Hrs 1750 Cycles	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/7	3 wafer lots 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 9 alt 10	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB	-5SC, 2SC, 8SC, 12SC, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=6SC to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSiG 100%RH; PER JESD22A-104 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS)	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Hrs 168 Hrs 500 Hrs	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass
4 5 6 7 8 8 9 alt	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIU-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIU-STD-750 Method 1037 (N/A for TVS)	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 188 Hrs 1000 Hrs 1000 Hrs 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Hrs 168 Hrs 168 Hrs 1000 Hrs 168 Cycles 1000 Cycles	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/7	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 wafer lots 1 wafer lots	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 9 alt 10	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JES022 A-108 Ta=65C to 150C or Max TJ, PER JES022A-104 Ta=121°C 15PSIG 100KRH: PER JES022A-104 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JES022A-101 MIL-STD-750 Method 1037 (N/A for TVS) HBM (AEC-Q101-001)	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 1000 Cycles 1000 Cycles 1000 Hrs 500 Trs 168 Krs 168 Cycles 1000 Hrs 168 Krs 168 Krs 169 Hrs 169 Hrs 169 Cycles 17560 Cycles 17560 Cycles 17560 Cycles 1500 Cycles 1500 Cycles 1500 Cycles 1500 Cycles	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 3 wafer lots	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 9 alt 10 11 12	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB	-5SC, 2SC, 8SC, 12SC, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=6SC to 15DC or Max TJ, PER JESD22A-104 Ta=121°C 15PSiG 100%RH; PER JESD22A-104 A102 Ta=8SPC, 8S% RH, with 80% Maximum Reverse Bias, JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) HBM [AEC-Q101-001] MM [AEC-Q101-001] MM [AEC-Q101-001] AEC Q101-004 SEC. 4	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles 1000 Cycles 1000 Cycles 168 Rrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Cycles 1000 Cycles 10	0/25 0/77	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 wafer lots 1 wafer lot 1 Assembly lots	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 8 10 11	PARAMETRIC VERIFICATION [PV] HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL ESD DPA Package Physical Dimensions (PD)	-SSC, 2SC, 8SC, 12SC, 15OC Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-7SO-1 Ta=150°C or Max TJ, Vg=100%, PER JES022 A-108 Ta=65C to 150C or Max TJ, PER JES022A-104 Ta=121°C 15PSiG 100%RH; PER JES022A-104 Ta=85PC, 8SK RH, with 80% Maximum Reverse Bias. JES022A-101 MIL-STD-750 Med 1037 (N/A for TVS) HBM (AEC-Q101-001) MM (AEC-Q101-002)	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Hrs 500 Cycles 1000 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Cycles 168 Hrs 500 Cycles 17560 Cycles 168 Hrs 500 Cycles 17560 Cycles 17500 Cycles 17500 Cycles 17500 Cycles 17500 Cycles	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/7	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 3 wafer lots 1 wafer lot 1 wafer lot	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 8 10 11 12 13	PARAMETRIC VERIFICATION [PV] HTRB HTGB (Gated Devices only) TC PCT/AC HSTRB IOL ESD DPA Package Physical Olimemsions [PD] RESISTANCE TO	-5SC, 2SC, 8SC, 12SC, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=6SC to 15DC or Max TJ, PER JESD22A-104 Ta=121°C 15PSiG 100%RH; PER JESD22A-104 A102 Ta=8SPC, 8S% RH, with 80% Maximum Reverse Bias, JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) HBM [AEC-Q101-001] MM [AEC-Q101-001] MM [AEC-Q101-001] AEC Q101-004 SEC. 4	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles 1000 Cycles 1000 Cycles 168 Rrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Cycles 1000 Cycles 10	0/25 0/77	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 wafer lots 1 wafer lot 1 Assembly lots	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 8 9 alt 10 11 12 13 20	PARAMETRIC VERIFICATION [PV] HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL ESD DPA Package Physical Dimemsions (PO) RESISTANCE TO SOLDER REAT (SSH)	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100N, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100N, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 159SiG 100NRH; PER JESD22A-104 A102 Ta=85°C, 85N RH, with 80N Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) MBM. [AEC-Q101-001] MM. [AEC-Q101-002] AEC Q101-003 SEC 4 JESD22-8100 JESD22-8100	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Wrs 168 Hrs 500 Hrs 1000 Cycles 1500 Cycles 150	0/25 0/77 0/70 0/70 0/30 0/30 0/30 0/30	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 wafer lots 1 wafer lot 1 Assembly lot	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 8 9 alt 10 11 12 13 20 21	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL ESD DPA Package Physical Olimemsions (PD) RESSTANCE TO SOLDER HEAT (RSH) Solderability	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100M, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100M, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100NRH; PER JESD22A-104 MIL-STD-750 Method 1037 (N/A for TV5) MBM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MEC Q101-005 SEC. 4 JESD22-8100 JESD22-8100 JESD22-8-111 (SMD), 8-106 (PTH) (260C @305)	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 188 Hrs 500 Hrs 1000 Hrs 1000 Hrs 1000 Cycles 96 Hrs 168 Hrs 1000 Cycles 96 Hrs 168 Hrs 1000 Hrs 1500 Cycles 4 KV 200V PER SPEC Package Outline PER SPEC 5 Seconds	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/7	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 wafer lots 1 wafer lot 1 wafer lot 1 Assembly lot	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass
4 5 6 7 8 8 9 alt 10 11 12 13 20 21	PARAMETRIC VERIFICATION [PV] HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL ESD DPA Package Physical Dimemsions (PO) RESISTANCE TO SOLDER REAT (SSH)	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100N, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100N, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 159SiG 100NRH; PER JESD22A-104 A102 Ta=85°C, 85N RH, with 80N Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) MBM. [AEC-Q101-001] MM. [AEC-Q101-002] AEC Q101-003 SEC 4 JESD22-8100 JESD22-8100	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Wrs 168 Hrs 500 Hrs 1000 Cycles 1500 Cycles 150	0/25 0/77 0/70 0/70 0/30 0/30 0/30 0/30	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 wafer lots 1 wafer lot 1 Assembly lot	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 8 9 alt 10 11 12 13 20 21	PARAMETRIC VERIFICATION [PV] HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL ESD DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability THERMAL RESISTANCE	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100M, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100M, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100NRH; PER JESD22A-104 MIL-STD-750 Method 1037 (N/A for TV5) MBM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MEC Q101-005 SEC. 4 JESD22-8100 JESD22-8100 JESD22-8-111 (SMD), 8-106 (PTH) (260C @305)	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 188 Hrs 500 Hrs 1000 Hrs 1000 Hrs 1000 Cycles 96 Hrs 168 Hrs 1000 Cycles 96 Hrs 168 Hrs 1000 Hrs 1500 Cycles 4 KV 200V PER SPEC Package Outline PER SPEC 5 Seconds	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/7	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 wafer lots 1 wafer lot 1 wafer lot 1 Assembly lot	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 8 10 11 12 13 20 21 22 23 24	PARAMETRIC VERIFICATION [PV] HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL ESD DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability THERMAL RESISTANCE (IR) Wire Bond Strength BOND SHEAR	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TV5) HBM (AEC-Q101-001) MM (AEC-Q101-002) AEC Q101-004 SEC. 4 JESD22-8100 JESD22-8-111 (SMD), 8-106 (PTH) (260C @305) J-STD-002; JESD22B102 (245C =0/55) JESD 24-3, 24-4, 24-6 AS APPROPRIATE MIL-STD-750 METHOD 2037 (JESD22-81168) AEC-Q101-003	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 188 Hrs 500 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 1000 Cycles 500 Cycles 96 Hrs 168 Hrs 500 Hrs 1000 Cycles 96 Hrs 168 Hrs 1000 Cycles 96 Hrs 168 Hrs 2520 Cycles 15000 Cycles 42V 200V PER SPEC Package Outline PER SPEC 5 Seconds PER SPEC	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/7	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 wafer lots 1 wafer lot 1 wafer lot 1 Assembly lot	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 8 9 ait 10 11 12 13 20 21 22 23 24	PARAMETRIC VERIFICATION (PV) HTRB HTGB (Gated Devices anly) TC PCT/AC H3TRB IOL ESD DPA Package Physical Dimensions (PD) RESISTANCE TO SOlder Alextra (RSH) Solder ability THERMAIA RESISTANCE (TR) Wire Bond Strength	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSiG 100%RH; PER JESD22A-104 A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TV5) HBM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) JESD22 A-111 (SMD), 8-106 (PTH) (Z60C @305) J-STD-002; JESD22B102 (245C +0/55) JESD 24-3, 24-4, 24-6 AS APPROPRIATE MIL-STD-750 METHOD 2037 (JESD22-81168)	Operating Range, Per Data Sheet 168 Hrs. 500 Hrs. 1000 Hrs. 1000 Hrs. 1000 Hrs. 1000 Hrs. 1000 Hrs. 1000 Cycles 500 Lycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1500 Cycles 15000 Cycles 150	0/25 0/77 0/70	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 wafer lots 1 wafer lot 1 Assembly lot	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 8 9 alt 10 11 12 13 20 21 22 23 24 25	PARAMETRIC VERIFICATION [PV] HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL ESD DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (R3H) Solderability THERMAL RESISTANCE Wire Bond Strength BOND SHEAR DIE Shear	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 MIL-STD-750 Method 1037 (N/A for TV5) MBM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MIL-STD-750 Method 1037 (PFH) (260C @305) J-STD-002; JESD22B102 (245C +0/S5) JESD 24-3, 24-4, 24-6 AS APPROPRIATE MIL-STD-750 METHOD 2037 (JESD2-B1168) AEC-Q101-003 MIL-STD-750 (2017)	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 188 Hrs 500 Hrs 1000 Wrs 168 Cycles 500 Cycles 96 Hrs 1000 Cycles 1000 Cycles 96 Hrs 1000 Cycles 15000 Cycles 15000 Cycles 15000 Cycles 1500	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/7	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots. 3 Assembly lots. 3 wafer lots 1 wafer lots 1 wafer lot 1 wafer lot 1 wafer lot 1 Assembly lot	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 8 9 ait 10 11 12 13 20 21 22 23 24 25	PARAMETRIC VERIFICATION [PV] HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL ESD DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability THERMAL RESISTANCE (IR) Wire Bond Strength BOND SHEAR	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TV5) HBM (AEC-Q101-001) MM (AEC-Q101-002) AEC Q101-004 SEC. 4 JESD22-8100 JESD22-8-111 (SMD), 8-106 (PTH) (260C @305) J-STD-002; JESD22B102 (245C =0/55) JESD 24-3, 24-4, 24-6 AS APPROPRIATE MIL-STD-750 METHOD 2037 (JESD22-81168) AEC-Q101-003	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 188 Hrs 500 Hrs 1000 Gyeles 158 Cycles 500 Cycles 168 Hrs 1000 Cycles 96 Hrs 168 Hrs 1000 Cycles 96 Hrs 1500 Hrs 1000 Hrs 1000 Hrs 1000 Hrs 500 Hrs 1000 Hrs 500 Hrs 1500 Cycles 7560 Cycles 15000 Cycles 4 KV 200V PER SPEC Package Outline PER SPEC 5 Seconds PER SPEC Cpk-1.66 Cpk-1.66	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/7	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 wafer lots 1 wafer lots 1 wafer lot 1 wafer lot 1 Assembly lot	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 8 9 alt 10 11 12 13 20 21 22 23 24 25	PARAMETRIC VERIFICATION [PV] HTRB HTGB (Gated Devices only) TC PCT/AC H3TR8 IOL ESD DPA Package Physical Olimemisons (PD) RESSTANCE TO SOLDER HEAT (RSH) Solder ability THERMAL RESISTANCE (TR) Wire Bond Strength BOND SHEAR Die Shear Short Circuit Reliability Characterization	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 MIL-STD-750 Method 1037 (N/A for TV5) MBM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MIL-STD-750 Method 1037 (PFH) (260C @305) J-STD-002; JESD22B102 (245C +0/S5) JESD 24-3, 24-4, 24-6 AS APPROPRIATE MIL-STD-750 METHOD 2037 (JESD2-B1168) AEC-Q101-003 MIL-STD-750 (2017)	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Wrs 168 Kycles 500 Cycles 168 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Wrs 1000 Hrs 100 Hrs 1000 Hrs	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/7	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots. 3 Assembly lots. 3 wafer lots 1 wafer lots 1 wafer lot 1 wafer lot 1 wafer lot 1 Assembly lot	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass
4 5 6 7 8 8 10 11 12 13 20 21 22	PARAMETRIC VERIFICATION [PV] HTRB HTGB (Gated Devices only) TC PCT/AC H3TRB IOL ESD DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability THERMAL RESISTANCE TO SOLDER HEAT (RSH) BOND SHEAR Die Shear Short Circuit Reliability Characterization Remark:	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 MIL-STD-750 Method 1037 (N/A for TV5) MBM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MIL-STD-750 Method 1037 (PFH) (260C @305) J-STD-002; JESD22B102 (245C +0/S5) JESD 24-3, 24-4, 24-6 AS APPROPRIATE MIL-STD-750 METHOD 2037 (JESD2-B1168) AEC-Q101-003 MIL-STD-750 (2017)	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Wrs 168 Kycles 500 Cycles 168 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Wrs 1000 Hrs 100 Hrs 1000 Hrs	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/7	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots. 3 Assembly lots. 3 wafer lots 1 wafer lots 1 wafer lot 1 wafer lot 1 wafer lot 1 Assembly lot	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass
4 5 6 7 8 8 9 alt 10 11 12 13 20 21 22 23 24 25	PARAMETRIC VERIFICATION [PV] HTRB HTGB (Gated Devices only) TC PCT/AC H3TR8 IOL ESD DPA Package Physical Olimemisons (PD) RESSTANCE TO SOLDER HEAT (RSH) Solder ability THERMAL RESISTANCE (TR) Wire Bond Strength BOND SHEAR Die Shear Short Circuit Reliability Characterization	-55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=150°C or Max TJ, Vg=100%, PER JESD22 A-108 Ta=65C to 150C or Max TJ, PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 Ta=121°C 15PSIG 100%RH; PER JESD22A-104 MIL-STD-750 Method 1037 (N/A for TV5) MBM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MM (AEC-Q101-001) MIL-STD-750 Method 1037 (PFH) (260C @305) J-STD-002; JESD22B102 (245C +0/S5) JESD 24-3, 24-4, 24-6 AS APPROPRIATE MIL-STD-750 METHOD 2037 (JESD2-B1168) AEC-Q101-003 MIL-STD-750 (2017)	Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Hrs 500 Hrs 1000 Wrs 168 Kycles 500 Cycles 168 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Cycles 1000 Wrs 1000 Hrs 100 Hrs 1000 Hrs	0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/7	testing 3 wafer lots 3 wafer lots 3 wafer lots 3 Assembly lots. 3 Assembly lots. 3 wafer lots 1 wafer lots 1 wafer lot 1 wafer lot 1 wafer lot 1 Assembly lot	X X X X X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X X X X X	Pass Pass





Description: ZXTP08400BFF/ZXTN08400BFF CuPd wire bonding conversion c

	Category Product	Part Number				Qual Device 1 ZXTP084008FF		Qual Device 2 ZXTN08400BFF	
	Assembly	Part Number Package Type				SOT23 Flat		SOT23 FLAT	
30	Assembly	Package Size		l		2.9 x 2.4 x 0.9		2.9 x 2.4 x 0.9	
	Wafer	Die Name(s)		1		FZT758TXD		FZT658TXD	-
	Wafer	Die Size (W/L/Thickness) - After Saw		1		1.143 x 1.143 x 0.178		1.143 x 1.143 x 0.178	
25	Wafer	Die Process / Technology		1		Gen3 - HV		Gen3 - HV	
EU)	Wafer	Wafer FAB/ Location		1		OFAB		OFAB	
5.54	Wafer	Wafer Diameter		1		150mm		150mm	
	Wafer	Front Metal Type		1		AlSiCu		AlSiCu	
PL S	Wafer	Front Metal Layer Number/ Thickness		1		3.0um		3um	
	Wafer	Back Metal Type (All Layers)		1		TINIAg		TINIAg	
VI. 74	Wafer	Back Metal Thickness (All Layers)		1		300/2600/5500A		300/2600/5500A	
	Wafer	No of masks Steps		1		5		4	
	Assembly	Die quantity per package (e.g. single or dual dies)	NAME OF TAXABLE	1		1		1	
TELL	Assembly	Die Attach Method (DB Epoxy/Solder Type)	Contract of the contract of th	l		Ероху		Ероху	
	Assembly	Die Attach Material/ Supplier		I		QMI529HT/Henkel		QMI529HT/Henkel	
	Assembly	Bond Wire/Clip Bond Material/ Supplier	and the same	l		CuPd/Heraeus		CuPd/Heraeus	
4	Assembly	Bond Type (at Die)		l		Thermosonic		Thermosonic	
	Assembly	Bond Type (at LF)		l		Thermosonic		Thermosonic	
951):	Assembly	No. of bond over active area		l		2		2	
EX.D	Assembly	Glass Transistion Temp	AND INCOME.	l		125 degree C		125 degree C	
OVE	Assembly	Terminal Finish (Plating) Material	2011	l		Matt Sn		Matt Sn	
	Assembly	Header plating (Die Land Area)		l		Spot Ag		Spot Ag	
	Assembly	Wire Diameter		l	I I	38µm		38µm	
	Assembly	Leadframe Type]	1	SOT-23 FLAT		SOT-23 FLAT	
	Assembly	Leadframe Material	MENICOLEM	I	1	K65 (Wieland)		K65 (Wieland)	
YU	Assembly	Lead Frame Manufacturer	NZ DAY 151	ı	1	Possehl		Possehl	
10	Assembly	Molding Compound Type]		GE1030M		GE1030M	
	Assembly	Mold Compound Material Manufacturer		1	<u> </u>	Nitto		Nitto	
	Assembly	Green Compound (Yes/No)		I		Yes		Yes	
	Assembly	Lead-Free (Yes/No)]		Yes		Yes	
	Assembly	Assembly Site/ Location	Dispersion 10]	i	NAT		NAT	
	Assembly	Test Site/ Location	EDIZONA R	l	l	NAT		NAT	
	Product	Max Junction Temp	Line of the second	l	1	150 degree C		150 degree C	
	Product	Max Thermal resistance Junc (amibent)	COX CELUEVATOR	I	<u> </u>	149 °C/W		149 °C/W	
	Product	DataSheet		1		DS33674		DS33675	
		Reliability and Characterization Testing							
					Name of Street or other			Company of the state of the state of	
# in AEC- Q101	Test	Test Conditions	Duration / Limits	Accept on # Failed/ Sample Size	# of Lots	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail
(D)	NAME OF TAXABLE PARTY.			per Lot					
(D)		Bake 125C	24 Hrs	ALC: N	STATE OF	N V	Pass		Pass
	MSL1 Pre-	Bake 125C Soak 85C, 85% RH	24 Hrs 168Hrs	SMD only,	Etzajakta:	X X	Pass Pass	X X	Pass Pass
(D) 2	MSL1 Pre- conditioning			ALC: N	3 Assembly lots				
		Soak 85C, 85% RH	168Hrs	SMD only, for Test #7, 8, 9 & 10	3 Assembly lots ion parts submitted for testing	X	Pass	X	Pass
2	conditioning EXTERNAL VISUAL	Soak 85C, 85% RH IR reflow 260C	168Hrs 3 cycles	SMD only, for Test #7, 8, 9 & 10	ion parts submitted for	x x	Pass Pass	x x	Pass
2	EXTERNAL VISUAL (EV) PARAMETRIC	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet	SMD only, for Test #7, 8, 9 & 10 All qualificat	ion parts submitted for testing	x x x	Pass Pass Pass Pass	x x x	Pass Pass Pass
3	EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV)	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25	ion parts submitted for testing 3 wafer lots	x x x	Pass Pass Pass Pass	x x x	Pass Pass Pass Pass
2	EXTERNAL VISUAL (EV) PARAMETRIC	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77	ion parts submitted for testing	x x x	Pass Pass Pass Pass Pass Pass Pass	x x x x	Pass Pass Pass Pass Pass Pass Pass
3	EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV)	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots	x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Cycles	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots	x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
3	EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV)	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots	x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max Tj, PER JESD22A-104	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles 1000 Cycles	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots	x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	X X X X X X X X X X X X X X X	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max TJ, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 1000 Hrs 1000 Hrs 168 Cycles 500 Cycles 500 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/5	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots	x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max TJ, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles 500 Hrs 96 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots	x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 1000 Hrs 1000 Cycles 1000 Cycles 500 Hrs 96 Hrs 168 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/5	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots	x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max TJ, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 168 Cycles 500 Cycles 1000 Cycles 500 Hrs 96 Hrs 168 Hrs 500 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 1000 Hrs 168 Cycles 500 Cycles 1000 Cycles 500 Hrs 96 Hrs 168 Hrs 500 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC H3TRB	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 1000 Hrs 1000 Cycles 500 Cycles 500 Hrs 96 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 Assembly lots	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%H; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 168 Cycles 500 Cycles 1000 Cycles 500 Hrs 96 Hrs 168 Hrs 500 Hrs 1000 Hrs 2520 Cycles 7560 Cycles	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC H3TRB	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max TJ, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 1000 Hrs 1000 Cycles 500 Cycles 500 Hrs 96 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 wafer lots 3 wafer lots	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8 9 alt 10 12	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC H3TRB IOL DPA	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max TJ, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Cycles 500 Cycles 500 Hrs 96 Hrs 168 Hrs 500 Hrs 1000 Hrs 1000 Hrs 158 Hrs 500 Hrs 1000 Hrs 158 Hrs 500 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 wafer lots 3 wafer lots 1 Assembly lots	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8 9 alt	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD)	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max TJ, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 168 Cycles 500 Cycles 1000 Cycles 500 Hrs 96 Hrs 168 Hrs 500 Hrs 1000 Hrs 2520 Cycles 7560 Cycles	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 wafer lots 3 wafer lots	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8 9 alt 10 12 13	Conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH)	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%H; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4 JESD22-B100 JESD22 A-111 (SMD), B-106 (PTH) (260C @30S)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Cycles 500 Cycles 500 Hrs 96 Hrs 168 Hrs 500 Hrs 1000 Hrs 1000 Hrs 158 Hrs 500 Hrs 1000 Hrs 158 Hrs 500 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 wafer lots 3 wafer lots 1 Assembly lots	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8 9 alt 10 12 13	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond integrity PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4 JESD22-B100	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 1000 Hrs 1000 Hrs 168 Cycles 1000 Cycles 1000 Cycles 500 Hrs 96 Hrs 168 Hrs 500 Hrs 1000 Hrs 1500 Cycles 15000 Cycles	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/30	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 wafer lots 3 wafer lots 1 Assembly lot 1 Assembly lot	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8 9 alt 10 12 13 20	Conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability THERMAL RESISTANCE (TR)	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%H; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4 JESD22-B100 JESD22 A-111 (SMD), B-106 (PTH) (260C @30S)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles 1000 Cycles 500 Hrs 168 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs Package Outline PER SPEC	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/30 0/30	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 Assembly lot 1 Assembly lot 1 Assembly lot	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8 9 alt 10 12 13 20 21	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability THERMAL	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/AI) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4 JESD22-B100 JESD22 A-111 (SMD), B-106 (PTH) (260C @30S)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles 1000 Cycles 500 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs 169 Hrs 17560 Cycles 15000 Cycles 15000 Cycles	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/30 0/30 0/30	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 Assembly lot 1 Assembly lot 1 Assembly lot	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8 10 12 13 20 21 22 23 24	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability THERMAL RESISTANCE (TR) Wire Bond Strength	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4 JESD22-B100 JESD22 A-111 (SMD), B-106 (PTH) (260C @30S) J-STD-002; JESD22B102 (245C+0/5S) JESD 24-3, 24-4, 24-6 AS APPROPRIATE	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 1000 Hrs 168 Cycles 1000 Cycles 1000 Cycles 500 Hrs 168 Hrs 1000 Hrs 168 Hrs 1000 Hrs 168 Hrs 1000 Hrs 1500 Cycles 15000 Cycles 15000 Cycles	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/70	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 Assembly lot	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8 9 9 alt 10 12 13 20 21 22 23	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond integrity PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability THERMAL RESISTANCE (TR) Wire Bond Strength (WBI)	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max TJ, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max TJ, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4 JESD22-B100 JESD22 A-111 (SMD), B-106 (PTH) (260C @30S) J-STD-002; JESD22B102 (245C+0/5S) JESD 24-3, 24-4, 24-6 AS APPROPRIATE MIL-STD-750 METHOD 2037 (JESD22-B116B)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 1000 Hrs 1000 Hrs 168 Cycles 1000 Cycles 500 Hrs 96 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs 17560 Cycles 15000 Cycles 15000 Cycles 15000 Cycles 15000 Cycles 15000 Cycles	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 Assembly lot	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8 10 12 13 20 21 22 23 24	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability THERMAL RESISTANCE (TR) Wire Bond Strength (WBI) BOND SHEAR Die Shear	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4 JESD22-B100 JESD22 A-111 (SMD), B-106 (PTH) (260C @30S) J-STD-002; JESD22B102 (245C +0/5S) JESD 24-3, 24-4, 24-6 AS APPROPRIATE MIL-STD-750 METHOD 2037 (JESD22-B116B) AEC-Q101-003 MIL-STD-750 (2017)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 1000 Hrs 168 Cycles 1000 Cycles 1000 Cycles 500 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs 168 Hrs 500 Hrs 1000 Cycles 15000 Cycles 15000 Cycles 7560 Cycles 15000 Cycles Package Outline PER SPEC 5 Seconds PER SPEC Cpk>1.66 Cpk>1.66	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 Assembly lot	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8 10 12 13 20 21 22 23 24	CONDITIONING EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC H3TRB IOL DPA Package Physical Dimensions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability THERMAL RESISTANCE (TR) Wire Bond Strength (WBI) BOND SHEAR	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4 JESD22-B100 JESD22 A-111 (SMD), B-106 (PTH) (260C @30S) J-STD-002; JESD22B102 (245C +0/5S) JESD 24-3, 24-4, 24-6 AS APPROPRIATE MIL-STD-750 METHOD 2037 (JESD22-B116B) AEC-Q101-003	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 1000 Hrs 168 Cycles 1000 Cycles 1000 Cycles 500 Hrs 96 Hrs 168 Hrs 500 Hrs 1000 Hrs 2520 Cycles 15000 Cycles 15000 Cycles Package Outline PER SPEC Cpk>1.66 Cpk>1.66 PER SPEC 168 Hrs 500 Hrs	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/77 0/77 0/77 0/77 0/77 0/77 0/	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 Assembly lots 3 wafer lots 1 Assembly lot 1 Assembly lot	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass
2 3 4 5 7 7b 8 10 12 13 20 21 22 23 24	conditioning EXTERNAL VISUAL (EV) PARAMETRIC VERIFICATION (PV) HTRB TC Wire Bond Integrity PCT/AC H3TRB IOL DPA Package Physical Dimemsions (PD) RESISTANCE TO SOLDER HEAT (RSH) Solderability THERMAL RESISTANCE (TR) Wire Bond Strength (WBI) BOND SHEAR Die Shear	Soak 85C, 85% RH IR reflow 260C MIL-STD-750 METHOD 2071 -55C, 25C, 85C, 125C, 150C Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1 Ta=-65C to 150C or Max Tj, PER JESD22A-104 MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Al) Ta=121°C 15PSIG 100%RH; PER JESD22-A102 Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101 MIL-STD-750 Method 1037 (N/A for TVS) AEC Q101-004 SEC. 4 JESD22-B100 JESD22 A-111 (SMD), B-106 (PTH) (260C @30S) J-STD-002; JESD22B102 (245C +0/5S) JESD 24-3, 24-4, 24-6 AS APPROPRIATE MIL-STD-750 METHOD 2037 (JESD22-B116B) AEC-Q101-003 MIL-STD-750 (2017)	168Hrs 3 cycles PER SPEC Operating Range, Per Data Sheet 168 Hrs 500 Hrs 1000 Hrs 168 Cycles 500 Cycles 1000 Cycles 500 Hrs 168 Hrs 500 Cycles 15000 Cycles 7560 Cycles 15000 Cycles 15000 Cycles Cycles 15000 Cycles	SMD only, for Test #7, 8, 9 & 10 All qualificat 0/25 0/77 0/70 0/30 0/30 0/10 0/10 0/ min of 5 0/5 0/77	ion parts submitted for testing 3 wafer lots 3 wafer lots 3 Assembly lots 3 Assembly lots 3 wafer lots 3 wafer lots 1 Assembly lot	x x x x x x x x x x x x x x x x x x x	Pass Pass Pass Pass Pass Pass Pass Pass	x x x x x x x x x x x x x x x x x x x	Pass Pass