



Diodes Incorporated Discrete and Analog Semiconductors

Qualification Report – PCN-2259



Manufacturer No.:

Qualification of Additional Wafer Sources for Select Discrete Products

Revision:

0

Date:

February 2, 2017

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

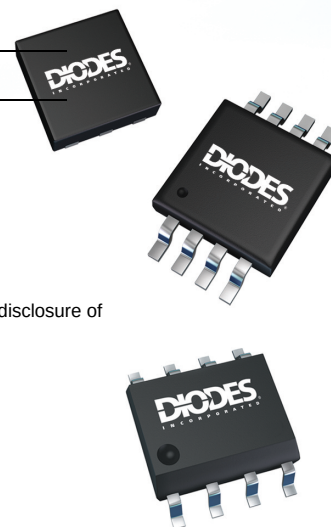
February 2, 2017

Approved By:

Diodes US QRA Department

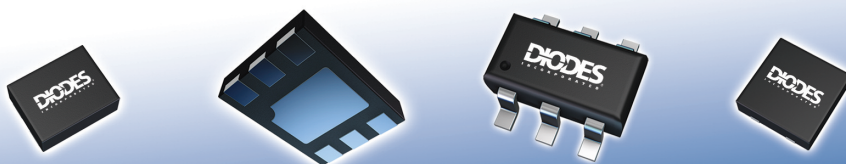
Date

February 2, 2017



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DATE: 2 February, 2017

PCN #: 2259

PCN Title: Qualification of Additional Wafer Sources for Select Discrete 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 immediately. 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 be implemented immediately.

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-2259- REV 00**

Notification Date:	Implementation Date:	Product Family:	Change Type:	PCN #:
2 February, 2017	Immediately	Discrete	Additional Wafer Sources	2259
TITLE				
Qualification of Additional Wafer Sources for Select Discrete Products				
DESCRIPTION OF CHANGE				
This PCN is being issued to notify customers that in order to assure continuity of supply, Diodes has qualified additional wafer sources, JiLin Magic Semiconductor Co., Ltd. (JMSC) in JiLin, China, Lite-On Semiconductor Corporation (LSC) in Keelung, Taiwan, or Phenitec Semiconductor Corp. in Okayama, Japan for devices as indicated in the tables below.				
Due to the previously announced production delay at our Diodes FabTech (KFAB – Lee's Summit, MO USA) wafer fabrication facility (see related press release at www.diodes.com) this change will be phased in starting immediately on select devices to assure continuity of supply to our customers. Please contact your local Diodes Sales representative for parts that are immediately affected.				
Full electrical characterization and high reliability testing has been 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 products affected.				
IMPACT				
Continuity of Supply. No change in datasheet parameters and product performance.				
PRODUCTS AFFECTED				
Table 1 – Add JiLin Magic Semiconductor Co., Ltd (JMSC) as an Additional Wafer Source Table 2 – Add Lite-On Semiconductor Corporation (LSC) as an Additional Wafer Source Table 3 – Add Phenitec Semiconductor Corp. as an Additional Wafer Source				
WEB LINKS				
Manufacturer's Notice:	http://www.diodes.com/pcns			
For More Information Contact:	http://www.diodes.com/contacts.html			
Data Sheet:	http://www.diodes.com/catalog			
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.				

Table 1 – Add JiLin Magic Semiconductor Co., Ltd (JMSC) as an Additional Wafer Source

B1100-13-F	B160-13-F	B220A-13-F	B280-13-F	B340A-13-F	B360B-13-F
B1100B-13-F	B160B-13-F	B230-13-F	B290-13-F	B340A-13-G	B370-13-F
B1100LB-13-F	B170-13-F	B230A-13-F	B3100-13-F	B340B-13-F	B380-13-F
B120-13-F	B170B-13-F	B240-13-F	B3100B-13-F	B340LA-13-F	B390-13-F
B120B-13-F	B180-13-F	B240-13-G	B320-13-F	B340LB-13-F	B520C-13-F
B130-13-F	B180B-13-F	B240A-13-F	B320A-13-F	B350-13-F	B530C-13-F
B130B-13-F	B190-13-F	B250-13-F	B320B-13-F	B350A-13-F	B540C-13-F
B140-13-F	B190B-13-F	B250A-13-F	B330-13-F	B350B-13-F	B550C-13-F
B140B-13-F	B2100-13-F	B260-13-F	B330A-13-F	B360-13-F	B560C-13-F
B150-13-F	B2100A-13-F	B260A-13-F	B330B-13-F	B360-13-G	
B150B-13-F	B220-13-F	B270-13-F	B340-13-F	B360A-13-F	

Table 2 – Add Lite-On Semiconductor Corporation (LSC) as an Additional Wafer Source

DFLT10A-7	DFLT16A-7	DFLT26A-7	DFLT40A-7	DFLT6V0A-7	DFLT9V0A-7
DFLT11A-7	DFLT17A-7	DFLT27A-7	DFLT43A-7	DFLT6V5A-7	
DFLT12A-7	DFLT18A-7	DFLT28A-7	DFLT45A-7	DFLT7V0A-7	
DFLT13A-7	DFLT20A-7	DFLT30A-7	DFLT48A-7	DFLT7V5A-7	
DFLT14A-7	DFLT22A-7	DFLT33A-7	DFLT51A-7	DFLT8V0A-7	
DFLT15A-7	DFLT24A-7	DFLT36A-7	DFLT5V0A-7	DFLT8V5A-7	

Table 3 – Add Phenitec Semiconductor Corp. as an Additional Wafer Source

BAS40-7-G	BAT54C-7-G	BAT54STA	DMMT2907A-7	SD103AW-13-F	SD103CW-13-F
BAS40LP-7-G	BAT54CTA	BAT54SW-7-G	MMDTA06-7	SD103AW-7-F	SD103CW-7-F
BAT54-7-G	BAT54CW-7-G	BAT54TA	PD3S0230-7	SD103AWS-7-F	SD103CWS-7-F
BAT54A-7-G	BAT54DW-7-G	BAT54WS-7-G	SD103ASDM-7-F	SD103BW-7-F	
BAT54ATA	BAT54S-7-G	BAT54WT-7	SD103ATW-7-F	SD103BWS-7-F	



Certificate of Design, Construction & Qualification

Description: Qualification of B Series Rectifiers Using JMSC Die and Eris for Assembly/Test

	Category	Product	Part Number			Qual Device 1 (Lot 1)	Qual Device 1 (Lot 2)		Qual Device 1 (Lot 3)		Qual Device 2		Qual Device 3		Qual Device 4		Qual Device 5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Assembly	Wafer	Die Name(s)	Die Size (W/L/Thickness) - After Saw	Die Process / Technology	Wafer FAB / Location	Wafer Diameter	Front Metal Type	Wafer	Front Metal Layer Number / Thickness	Wafer	Back Metal Type (All Layers)	Wafer	Back Metal Thickness (All Layers)	Wafer	Die Conformal Coating (Passivation)	Wafer	No of masks Steps	Assembly	Die quantity per package (e.g. single or dual)	Assembly	Die Attach Method (DB Epoxy/Solder Type)	Assembly	Die Attach Material/ Supplier	Assembly	Bond Wire/Clip Bond Material/ Supplier	Assembly	Bond Type (at Die)	Assembly	Bond Type (at LF)	Assembly	No. of bond over active area	Assembly	Glass Transition Temp	Assembly	Terminal Finish (Plating) Material	Assembly	Wire Diameter	Assembly	Leadframe Type	Assembly	Lead Frame Manufacturer	Assembly	Molding Compound Type	Assembly	Mold Compound Material Manufacturer	Assembly	Green Compound (Yes/No)	Assembly	Lead-Free (Yes/No)	Assembly	Assembly Site/ Location	Assembly	Test Site/ Location	Product	Max Junction Temp	Product	DataSheet																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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QBS Source Device 1		QBS Source Device 2		QBS Source Device 3		QBS Source Device 4		QBS Source Device 5		QBS Source Device 6		QBS Source Device 7		QBS Source Device 8		QBS Device (KEY)	
SDM20U40		SDMG0340L		SDM10U45		BAT54LP5		BAT54S		SDM03U40Q-7		SDM03U40Q-7		SDM03U40Q-7		BAS40V-7	
SOD-523		SOT-323		SOD523		DFN1006H4-2		SOT-23		SOD-523		SOD-523		SOD-523		SOT-563	
1.6*0.8*0.6mm		2.15*2.1*1.0mm		1.6*0.8*0.6mm		1.0*0.6*0.4mm		2.9*2.4*1.0mm		1.6*0.8*0.6mm		1.6*0.8*0.6mm		1.6*0.8*0.6mm		1.6*1.6*0.6mm	
XHH097		YHF017		XHZ05N		XFA05S		MFA054		YHF014		YHF014		YHF014		XHP037	
0.47*0.47*0.15mm		0.23*0.23*0.15mm		0.35*0.35*0.14mm		0.35*0.35*0.1mm		0.35*0.35*0.2mm		0.23*0.23*0.15mm		0.23*0.23*0.15mm		0.23*0.23*0.15mm		0.3*0.3*0.15mm	
SKY		SKY		SKY		SKY		SKY		SKY		SKY		SKY		SKY	
PHENITEC		PHENITEC		PHENITEC		PHENITEC		PHENITEC		PHENITEC		PHENITEC		PHENITEC		PHENITEC	
5 inch		5 inch		5 inch		5 inch		4 inch		5 inch		5 inch		5 inch		5 inch	
Al		Al		Al		Al		Al		Al		Al		Al		Al	
3 um		2 um		1.3um		N/A		N/A		2um		2um		2um		3um	
Au		Au		Au		TiAu		TiAu		Au		Au		Au		Au	
0.9 um		0.9 um		1.2um		1.2um		1.2um		0.9 um		0.9 um		0.9 um		0.9 um	
N/A		N/A		SiN		N/A		N/A		N/A		N/A		N/A		SiN	
3		4		3		3		N/A		4		4		4		N/A	
Single		Single		1		Single		2		Single		Single		Single		2	
EUTECTIC		EUTECTIC		Eutectic		Epoxy		EUTECTIC		EUTECTIC		EUTECTIC		EUTECTIC		EUTECTIC	
Au/HERAEUS&NBKQ		Au/HERAEUS&NBKQ		Au / na		Au / na		Au / na		Cu/NBKQ		Cu/NBKQ		Cu/NBKQ		Au	
Thermo sonic		Thermo sonic		Thermo ultrasonic		Thermo ultrasonic		Thermo ultrasonic		Thermo sonic		Thermo sonic		Thermo sonic		Ultrasonic	
Thermo sonic		Thermo sonic		Thermo ultrasonic		Thermo ultrasonic		Eutectic bonding		Thermo sonic		Thermo sonic		Thermo sonic		Ultrasonic	
1		1		1		1		2		1		1		1		2	
130°C		130°C		110C		135°C		130°C		130°C		130°C		130°C		140C	
Pbfree		Pbfree		Pbfree		Pbfree		Pbfree		Pure Sn		Pure Sn		Pure Sn		Matt Tin	
Spot Plating		Spot Plating		Ag		Ag		Spot Ag		Spot Plate		Spot Plate		Ag			
0.7mil		0.7mil		0.8		0.8mil		0.7mil		0.8mil		0.8mil		0.8mil		1.0mil	
SOD-523		SOT-323		SOD523		SLP1006P2		Alloy 42		SOD-523		SOD-523		SOD-523		SOT-563D	
Alloy 42		Alloy 42		Alloy 42		NiPdAu plated Cu		Alloy 42		ALLOY42		ALLOY42		ALLOY42		EFTEC-64T	
MHT&PBE		VAST&PBE&JihLin&ASM		PBE/3M/MHT		PBE/VAST/MHT		PBE/MHT/XMYH/VAST		PBE		PBE		PBE		MHT	
CEL-1702HF9 SK		CEL-1702HF9 SK		CEL-1702HF9 SK		EME-G770HCD		KTMCI050G		CEL-1702HF9 SK		CEL-1702HF9 SK		CEL-1702HF9 SK		CEL-1702HF9 SK	
HITACHI		HITACHI		HITACHI		Sumitomo		KCC		HITACHI		HITACHI		HITACHI		Hitachi	
Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
SAT		SAT		SAT		SAT		SAT		SAT		SAT		SAT		SAT	
SAT		SAT		SAT		SAT		SAT		SAT		SAT		SAT		SAT	
125C		125C		125C		N/A		125C		125°C		125°C	</				

Reliability and Characterization Testing																									
# in AEC-Q101 (D)	Test	Test Conditions	Duration / Limits	Accept on # Failed/ Sample Size per Lot	# of Lots	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail	X = Test Needed	Results Pass/Fail
2	MSL1 Pre-conditioning	Bake 125C	24 Hrs	SMD only, for Test #7, 8, 9 & 10	3 Assembly lots	X	pass	X	pass	X	pass			X	pass	X	Pass	X	Pass	X	Pass				
		Soak 85C, 85% RH	168Hrs			X	pass	X	pass	X	pass	X	Pass	X	Pass										
		IR reflow 260C	3 cycles			X	pass	X	pass	X	pass	X	Pass	X	Pass										
3	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	PER SPEC	All qualification parts submitted for testing		X	pass	X	pass	X	pass			X	pass	X	Pass	QBS to qual device 6	Pass	QBS to qual device 6	Pass				
4	PARAMETRIC VERIFICATION (PV)	-55C, 25C, 85C, 125C, 150C	Operating Range, Per Data Sheet	0/25	3 wafer lots	X	pass	X	pass	X	pass			X	pass	X	Pass	X	Pass	X	Pass	QBS			
	FORWARD SURGE	MIL-750D, METHOD 4066	PER DATA SHEET	0/45		X	pass	X	pass	X	pass			X	pass	X	Pass	X	Pass						
5	HTRB	Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1	168 Hrs	0/77	3 wafer lots	X	pass	X	pass							X	Pass	X	Pass	X	Pass	QBS			
			500 Hrs	0/77		X	pass	X	pass					X	Pass	X	Pass	X	Pass	QBS					
			1000 Hrs	0/77		X	pass	X	pass					X	Pass	X	Pass	X	Pass	QBS					
5 alt	HTRB	Ta=150°C or Max Tj, Vd/Vr/Vcbo=80%, MIL-STD-750-1 / PER JESD22 A-108	168 Hrs	0/77	3 wafer lots					X	pass			X	pass										
			500 Hrs	0/77				X	pass			X	pass												
			1000 Hrs	0/77				X	pass			X	pass												
7	TC	Ta=-65C to 150C or Max Tj, PER JESD22A-104	168 Cycles	0/77	3 Assembly lots	X	pass	X	pass	X	pass			X	pass	X	Pass	X	Pass	X	Pass	QBS			
			500 Cycles	0/77		X	pass	X	pass	X	pass	X	Pass	X	Pass	X	Pass	QBS							
			1000 Cycles	0/77		X	pass	X	pass	X	pass	X	Pass	X	Pass	X	Pass	QBS							
7b	Wire Bond Integrity	MIL-STD-750, Method 2037 (For bonding of dissimilar metals, eg: Au/Au)	500 Hrs	0/5	3 Assembly lots											X	Pass	QBS to qual device 6	Pass	QBS to qual device 6	Pass				
8	PCT/AC	Ta=121°C 15PSIG 100%RH; PER JESD22-A102	96 Hrs	0/77	3 Assembly lots	X	pass	X	pass							X	Pass	X	Pass	X	Pass	QBS			
9 alt	H3TRB	Ta=85°C, 85% RH, with 80% Maximum Reverse Bias. JESD22A-101	168 Hrs	0/77	3 wafer lots	X	pass	X	pass					X	pass	X	Pass	X	Pass	X	Pass	QBS			
			500 Hrs	0/77		X	pass	X	pass			X	pass	X	Pass	X	Pass	QBS							
			1000 Hrs	0/77		X	pass	X	pass			X	pass	X	Pass	X	Pass	QBS							
10	IOL	MIL-STD-750 Method 1037 (N/A for TVS)	2520 Cycles	0/77	3 wafer lots	X	pass	X	pass	X	pass			X	pass	X	Pass	X	Pass	X	Pass	QBS			
			7560 Cycles	0/77		X	pass	X	pass	X	pass	X	Pass	X	Pass	X	Pass	QBS							
			15000 Cycles	0/77		X	pass	X	pass	X	pass	X	Pass	X	Pass	X	Pass	QBS							
11	ESD	HBM (AEC-Q101-001)	PER DATA SHEET	0/30	1 wafer lot	X	pass	X	pass	X	pass			X	pass			X	Pass						
		CDM (AEC-Q100-005)	PER DATA SHEET	0/30	1 wafer lot	X	pass	X	pass							X	Pass								
		MM (AEC-Q101-002)	PER DATA SHEET	0/30	1 wafer lot	X	pass	X	pass	X	pass	X	pass			X	Pass								
12	DPA	AEC-Q101-004 SEC. 4	0/2	1 Assembly lot	X	pass	X	pass	X	pass			X	pass	X	Pass	QBS to qual device 6	Pass	QBS to qual device 6	Pass	QBS				
13	Package Physical Dimensions (PD)	JESD22-B100	Package Outline	0/30	1 Assembly lot	X	pass	X	pass	X	pass					X	Pass	QBS to qual device 6	Pass	QBS to qual device 6	Pass	QBS			
20	RESISTANCE TO SOLDER HEAT (RSH)	JESD22 A-111 (SMD), B-106 (PTH) (260C @30S)	PER SPEC	0/30	1 Assembly lot	X	pass	X	pass	X	pass			X	pass	X	Pass	X	Pass	X	Pass	QBS			
21	Solderability	J-STD-002; JESD22B102 (245C +0/5S)	5 Seconds	0/10	1 Assembly lot	X	pass	X	pass	X	pass					X	Pass	QBS to qual device 6	Pass	QBS to qual device 6	Pass	QBS			
22	THERMAL RESISTANCE (TR)	JESD 24-3, 24-4, 24-6 AS APPROPRIATE	PER SPEC	0/10	1 Assembly lot	X	pass	X	pass	X	pass			X	pass										
23	Wire Bond Strength	MIL-STD-750 METHOD 2037 (JESD22-B116B)	Cpk>1.66	0/ min of 5	1 Assembly lot	X	pass	X	pass	X	pass			X	pass	X	Pass	QBS to qual device 6	Pass	QBS to qual device 6	Pass	QBS			
24	BOND SHEAR	AEC-Q101-003	Cpk>1.66	0/ min of 5	1 Assembly lot	X	pass	X	pass	X	pass			X	pass	X	Pass	QBS to qual device 6	Pass	QBS to qual device 6	Pass	QBS			
25	Die Shear	MIL-STD-750 (2017)	Cpk>1.66	0/5	1 Assembly lot	X	pass	X	pass	X	pass					X	Pass	QBS to qual device 6	Pass	QBS to qual device 6	Pass	QBS			
Summary: Submitted By: Approved By:		Kylie Hwong, 12/15/16 Kylie Hwong, 12/15/16 Frank Chen, 12/20/2016																							



Description: Qualification of Lite-On's LT2MxxA TVS wafer series second source for DFLTxxA TVS Products

	Category					Qual Device 1		
	Product	Part Number				DFLT220A		
	Assembly	Package Type				PDi-123		
	Assembly	Package Size				3.70*1.78*0.98 mm		
	Wafer	Die Name(s)				LT2M220A		
	Wafer	Die Size (W/L/Thickness) - After Saw				1.143*1.143*0.24 mm		
	Wafer	Die Process / Technology				TVS		
	Wafer	Wafer FAB/ Location				Liteon/Taiwan		
	Wafer	Wafer Diameter				100 mm		
	Wafer	Front Metal Type				Al-Ti-Ni-Ag		
	Wafer	Front Metal Layer Number/ Thickness				50KA/1KA/4KA/20KA		
	Wafer	Back Metal Type (All Layers)				Al-Ti-Ni-Ag		
	Wafer	Back Metal Thickness (All Layers)				50KA/1KA/4KA/20KA		
	Wafer	Die Conforming Coating (Passivation)				Nitride Layer (Si3N4)		
	Wafer	No of masks Steps				3		
	Assembly	Die quantity per package (e.g. single or dual dies)				single		
	Assembly	Die Attach Method (DB Epoxy/Solder Type)				Solder		
	Assembly	Die Attach Material/ Supplier				ES-500-SPA		
	Assembly	Bond Wire/Clip Bond Material/ Supplier				Clip B new clip		
	Assembly	Bond Type (at Die)				Solder		
	Assembly	Bond Type (at LF)				Solder		
	Assembly	No. of bond over active area				1		
	Assembly	Glass Transistion Temp				135 °C		
	Assembly	Terminal Finish (Plating) Material				Silver Spot Plate		
	Assembly	Header plating (Die Land Area)				Sliver Spot Plate		
	Assembly	Wire Diameter				N/A		
	Assembly	Leadframe Type				CDA194HH		
	Assembly	Leadframe Material				CDA194HH		
	Assembly	Lead Frame Manufacturer				Hitachi		
	Assembly	Molding Compound Type				EME-G700LA		
	Assembly	Mold Compound Material Manufacturer		Sumitomo				
	Assembly	Green Compound (Yes/No)		Yes				
	Assembly	Lead-Free (Yes/No)		Yes				
	Assembly	Assembly Site/ Location		SAT/Shanghai				
	Assembly	Test Site/ Location		SAT/Shanghai				
	Product	Max Junction Temp		150 °C				
	Product	Max Thermal resistance Junc (case)		6 °C/W				
	Product	Max Thermal resistance Junc (amibent)		125 °C/W				
	Product	DataSheet		ds30581 Rev. 8 - 2				
	Reliability and Characterization Testing							
# in AEC-Q101 (D)	Test	Test Conditions	Duration / Limits	Accept on # Failed/ Sample Size per Lot	# of Lots	X = Test Needed	Results Pass/Fail	
2	MSL1 Pre-conditioning	Bake 125C	24 Hrs	SMD only, for Test #7, 8, 9 & 10	3 Assembly lots	X	Pass	
		Soak 85C, 85% RH	168Hrs			X	Pass	
		IR reflow 260C	3 cycles			X	Pass	
3	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	PER SPEC	All qualification parts submitted for testing		X	Pass	
4	PARAMETRIC VERIFICATION (PV)	-55C, 25C, 85C, 125C, 150C	Operating Range, Per Data Sheet	0/25	3 wafer lots	X	Pass	
	FORWARD SURGE	MIL-750D, METHOD 4066	PER DATA SHEET	0/45	3 wafer lots	X	Pass	
5	HTRB	Ta=150°C or Max Tj, Vd=100%, PER MIL-STD-750-1	168 Hrs	0/77	3 wafer lots	X	Pass	
			500 Hrs	0/77		X	Pass	
			1000 Hrs	0/77		X	Pass	
7	TC	Ta=-65C to 150C or Max Tj, PER JESD22A-104	168 Cycles	0/77	3 Assembly lots	X	Pass	
			500 Cycles	0/77		X	Pass	
			1000 Cycles	0/77		X	Pass	
8	PCT/AC	Ta=121°C 15PSIG 100%RH; PER JESD22-A102	96 Hrs	0/77	3 Assembly lots	X	Pass	
9	HAST	Ta=130C, 85%RH 33.3 psia 80% Bias; PER JESD22-A110	96 Hrs	0/77	3 wafer lots	X	Pass	
11	ESD	HBM (AEC-Q101-001)	PER DATA SHEET	0/30	1 wafer lot	X	Pass	
		MM (AEC-Q101-002)	PER DATA SHEET	0/30	1 wafer lot	X	Pass	
12	DPA	AEC Q101-004 SEC. 4		0/2	1 Assembly lot	X	Pass	
13	Package Physical Dimemnsions (PD)	JESD22-B100	Package Outline	0/30	1 Assembly lot	X	Pass	
20	RESISTANCE TO SOLDER HEAT (RSH)	JESD22 A-111 (SMD), B-106 (PTH) (260C @30S)	PER SPEC	0/30	1 Assembly lot	X	Pass	
21	Solderability	J-STD-002; JESD22B102 (245C +0/5S)	5 Seconds	0/10	1 Assembly lot	X	Pass	
22	THERMAL RESISTANCE (TR)	JESD 24-3, 24-4, 24-6 AS APPROPRIATE	PER SPEC	0/10	1 Assembly lot	X	Pass	
Summary: Submitted By: Yuan Dai, 1/9/2017 Approved By: Frank Chen, 1/12/2017								



SHANGHAI KAIHONG ELECTRONIC CO.,LTD

Hi-Reliability Test Summary Report

FACTORY:		PART NUMBER: BC817-16Q-7-F SWR1507218		CUSTOMER:		
		Package: SOT-23		DIODES INC.:		
LABORATORY (If Different):		PART DESCRIPTION: Phenitec Wafer:D5016S BIN2 5ACR-6107,Cu wire 1.0mil+GR640HV-L1				
DW-008 (AEC Q101) Test#	Test Description	Test Conditions	#Lots	#To Test	Results	REMARKS
7.3.2 (1)	PRE- AND POST- STRESS ELECTRICAL TEST (TEST)	Per Spec				
7.3.3 (2)	PRECONDITIONING (PC)	JSED22 A-113 N/A for Axial	1	308	0/308	
7.3.5.1 (3)	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	1	500	0/500	
7.3.5.2 (4)	PARAMETRIC VERIFICATION (PV)	Per Data Sheet Ta1=25C, Ta2=85C, Ta3=125C, Ta4=150C	1 of 3	25	0/25	
	Lot #2	BV CBO @IC=100uA BVCEO @IC=10mA BVEBO @IE=100uA	N/A	N/A		
	Lot #3	ICES @VCE=25V ICES @VCE=45V	N/A	N/A		
7.3.5.3	FORWARD SURGE	MIL-750D, Method 4066	N/A	N/A		
7.3.5.4 (5)	HIGH TEMP. REVERSE BIAS (HTRB)	T=150°C Vc=50V, PER JESD22 A-108	1	77		
	Pretest		1	77	0/77	
	@ 500 Hours	T=150°C Vc=50V, PER JESD22 A-108	1	77	0/77	
	Final 1000Hours	T=150°C Vc=50V, PER JESD22 A-108	1	77	0/77	
7.3.5.4 (6)	HIGH TEMP. STORAGE LIFE (HTS)	T=150°C , PER JESD22A-103	N/A	N/A		
	Pretest		N/A	N/A		
	@ 500 Hours	T=150°C , PER JESD22A-103	N/A	N/A		
	Final 1000Hours	T=150°C , PER JESD22A-103	N/A	N/A		
(6)	HIGH TEMP GATE BIAS (HTGB)	N/A for Diode	N/A	N/A		
7.3.5.5 (7)	TEMPERATURE CYCLING (TC)	T=-65°C-150°C, PER JESD22 A-104	1	77		
	Pretest		1	77	0/77	
	@ 500 Cycles	T=-65°C-150°C, PER JESD22 A-104	1	77	0/77	
	Final 1000 Cycles	T=-65°C-150°C, PER JESD22 A-104	1	77	0/77	
7.3.5.6 (8)	AUTOCLAVE (AC)	T=121°C 15PSIG 100%RH	1	77	0/77	
7.3.5.7 (9)	H ³ TRB	T=85°C RH=85% Vc=40V	1	77		
	Pretest		1	77	0/77	
	@ 500 Hours	T=85°C RH=85% Vc=40V	1	77	0/77	
	Final 1000 Hours	T=85°C RH=85% Vc=40V	1	77	0/77	
7.3.5.7 (9a)	Highly Accelerated Stress Test(HAST)	T=130°C RH=85% Vc=40V,PER JESD22 A-110	N/A	N/A		
	Pretest		N/A	N/A		
	After 96hrs	T=130°C RH=85% Vc=40V	N/A	N/A		
7.3.5.8 (10)	INTERMITTENTOPERATING LIFE (IOL)	Vc=30V Ic=10mA, PER MIL-STD-750 METHOD 1037	1	77		15000cycles@2mins on/off
	Pretest	MIL-STD-750 METHOD 1037	1	77	0/77	
	Midpoint	MIL-STD-750 METHOD 1037	1	77	0/77	
	After	MIL-STD-750 METHOD 1037	1	77	0/77	
(10a)	POWER AND TEMP. CYCLE (PTC)	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
(Optional)	Pretest	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	Midpoint	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	After	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
7.3.5.9 (11)	ESD CHARACTERIZATION (ESD)	PER AEC-Q101-001 & -002	N/A	N/A	0/60	MM 400V HBM 8KV
7.3.5.10 (12)	Destructive Physical Analysis (DPA)	AEC Q101-004 Section 4	1	4	0/4	
7.3.5.11 (13)	PHYSICAL DIMENSION (PD)	PER JESD22 B-100	N/A	N/A		
7.3.5.12 (14)	TERMINAL STRENGTH (TS)	MIL-STD-750, Method 2036	N/A	N/A		
7.3.5.13 (15)	RESISTANCE TO SOLVENTS (RTS)	JESD22 B-107	N/A	N/A		
(16)	CONSTANT ACCELERATION (CA)	N/A, not hermetically sealed device.	N/A	N/A		
(17)	VIBRATION VARIABLE FREQUENCY (VVF)	N/A, not hermetically sealed device.	N/A	N/A		
(18)	MECHANICAL SHOCK (MS)	N/A, not hermetically sealed device.	N/A	N/A		
(19)	HERMETICITY (HER)	N/A, not hermetically sealed device.	N/A	N/A		
7.3.5.14 (20)	RESISTANCE TO SOLDER HEAT (RSH)	JESD22 B-106	1	30	0/30	260°C@30sec
7.3.5.15 (21)	SOLDERABILITY (SD)	J-STD-002	N/A	N/A		
7.3.5.16 (22)	THERMAL RESISTANCE (TR)	JESD 24-3, 24-4, 24-6 as appropriate	N/A	N/A		
7.3.5.17 (23)	WIRE BOND STRENGTH (WBS)	MIL-STD-750 METHOD 2037	1	30	0/30	
7.3.5.18 (24)	BOND SHEAR (BS)	AEC-Q101-003	1	30	0/30	
7.3.5.19 (25)	DIE SHEAR (DS)	MIL-STD-750 METHOD 2017	1	30	0/30	
(26)	UNCLAMPED INDUCTIVE SWITCHING (UIS)	N/A, not for Diode	N/A	N/A		
(27)	DIELECTRIC INTEGRITY (DI)	N/A, not for Diode	N/A	N/A		
Summary:	This lot has passed 1000hrs hi-rel test.					
Submitted by: Sean Huang 11/12/15		Aooroved by: Adam Gu 11/12/15				



SHANGHAI KAIHONG ELECTRONIC CO.,LTD

Hi-Reliability Test Summary Report

FACTORY:		PART NUMBER: BC817-25-F SWR1509098		CUSTOMER:		
		Package: SOT-23		DIODES INC.:		
LABORATORY (If Different):		PART DESCRIPTION: Phenitec Wafer:D5016S BIN3 5ACT-8135,Cu wire 1.0mil+GR640HV-L1				
DW-008 (AEC Q101) Test#	Test Description	Test Conditions	#Lots	#To Test	Results	REMARKS
7.3.2 (1)	PRE- AND POST- STRESS ELECTRICAL TEST (TEST)	Per Spec				
7.3.3 (2)	PRECONDITIONING (PC)	JSED22 A-113 N/A for Axial	1	308	0/308	
7.3.5.1 (3)	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	1	500	0/500	
7.3.5.2 (4)	PARAMETRIC VERIFICATION (PV)	Per Data Sheet Ta1=25C, Ta2=85C, Ta3=125C, Ta4=150C BVCEO @IC=100uA BVCEO @IC=10mA BVEBO @IE=100uA ICES @VCE=25V ICES @VCE=45V IEBO @VEB=5V HFE @Vce=1V,Ic=100mA	1 of 3	25	0/25	
	Lot #2		2 of 3	25	N/A	
	Lot #3		3 of 3	25	N/A	
7.3.5.3	FORWARD SURGE	MIL-750D, Method 4066	N/A	N/A		
7.3.5.4 (5)	HIGH TEMP. REVERSE BIAS (HTRB)	T=150°C Vc=50V, PER JESD22 A-108	1	77		
	Pretest		1	77	0/77	
	@ 500 Hours	T=150°C Vc=50V, PER JESD22 A-108	1	77	0/77	
	Final 1000Hours	T=150°C Vc=50V, PER JESD22 A-108	1	77	0/77	
7.3.5.4 (6)	HIGH TEMP. STORAGE LIFE (HTS)	T=150°C , PER JESD22A-103	N/A	N/A		
	Pretest		N/A	N/A		
	@ 500 Hours	T=150°C , PER JESD22A-103	N/A	N/A		
	Final 1000Hours	T=150°C , PER JESD22A-103	N/A	N/A		
(6)	HIGH TEMP GATE BIAS (HTGB)	N/A for Diode	N/A	N/A		
7.3.5.5 (7)	TEMPERATURE CYCLING (TC)	T=-65°C-150°C, PER JESD22 A-104	1	77		
	Pretest		1	77	0/77	
	@ 500 Cycles	T=-65°C-150°C, PER JESD22 A-104	1	77	0/77	
	Final 1000 Cycles	T=-65°C-150°C, PER JESD22 A-104	1	77	0/77	
7.3.5.6 (8)	AUTOCLAVE (AC)	T=121°C 15PSIG 100%RH	1	77	0/77	
7.3.5.7 (9)	H ² TRB	T=85°C RH=85% Vc=40V	N/A	N/A		
	Pretest		N/A	N/A		
	@ 500 Hours	T=85°C RH=85% Vc=40V	N/A	N/A		
	Final 1000 Hours	T=85°C RH=85% Vc=40V	N/A	N/A		
7.3.5.7 (9a)	Highly Accelerated Stress Test(HAST)	T=130°C RH=85% Vc=40V,PER JESD22 A-110	1	77		
	Pretest		1	77	0/77	
	After 96hrs	T=130°C RH=85% Vc=40V	1	77	0/77	
7.3.5.8 (10)	INTERMITTENTOPERATING LIFE (IOL)	Vc=30V Ic=10mA, PER MIL-STD-750 METHOD 1037	1	77		15000cycles@2mins on/off
	Pretest	MIL-STD-750 METHOD 1037	1	77	0/77	
	Midpoint	MIL-STD-750 METHOD 1037	1	77	0/77	
	After	MIL-STD-750 METHOD 1037	1	77	0/77	
(10a)	POWER AND TEMP. CYCLE (PTC)	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
(Optional)	Pretest	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	Midpoint	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	After	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
7.3.5.9 (11)	ESD CHARACTERIZATION (ESD)	PER AEC-Q101-001 & -002	N/A	N/A	0/60	MM 400V HBM 8KV
7.3.5.10 (12)	Destructive Physical Analysis (DPA)	AEC Q101-004 Section 4	1	4	0/4	
7.3.5.11 (13)	PHYSICAL DIMENSION (PD)	PER JESD22 B-100	N/A	N/A		
7.3.5.12 (14)	TERMINAL STRENGTH (TS)	MIL-STD-750, Method 2036	N/A	N/A		
7.3.5.13 (15)	RESISTANCE TO SOLVENTS (RTS)	JESD22 B-107	N/A	N/A		
(16)	CONSTANT ACCELERATION (CA)	N/A, not hermetically sealed device.	N/A	N/A		
(17)	VIBRATION VARIABLE FREQUENCY (VVF)	N/A, not hermetically sealed device.	N/A	N/A		
(18)	MECHANICAL SHOCK (MS)	N/A, not hermetically sealed device.	N/A	N/A		
(19)	HERMETICITY (HER)	N/A, not hermetically sealed device.	N/A	N/A		
7.3.5.14 (20)	RESISTANCE TO SOLDER HEAT (RSH)	JESD22 B-106	1	30	0/30	260°C@30sec
7.3.5.15 (21)	SOLDERABILITY (SD)	J-STD-002	N/A	N/A		
7.3.5.16 (22)	THERMAL RESISTANCE (TR)	JESD 24-3, 24-4, 24-6 as appropriate	N/A	N/A		
7.3.5.17 (23)	WIRE BOND STRENGTH (WBS)	MIL-STD-750 METHOD 2037	1	30	0/30	
7.3.5.18 (24)	BOND SHEAR (BS)	AEC-Q101-003	1	30	0/30	
7.3.5.19 (25)	DIE SHEAR (DS)	MIL-STD-750 METHOD 2017	1	30	0/30	
(26)	UNCLAMPED INDUCTIVE SWITCHING (UIS)	N/A, not for Diode	N/A	N/A		
(27)	DIELECTRIC INTEGRITY (DI)	N/A, not for Diode	N/A	N/A		
Summary: This lot has passed 1000hrs hi-rel test.						
Submitted by: Sean Huang 11/20/15		Approved by: Susan Ding 11/20/15				



SHANGHAI KAIHONG ELECTRONIC CO.,LTD

Reliability Test Summary

FACTORY:		PART NUMBER : BC847PNQ-7-F SWR1602134		CUSTOMER:		
		Package Description : SOT-363		DIODES INC.:		
LABORATORY (If Different):		PART DESCRIPTION :Phenitex wafer:C5334D23H BIN2+A5335G23H_856 BIN2 5ACP-4409+5ACZ-3078				
DW-008 (AEC Q101) Test#	Test Description	Test Conditions	#Lots	#To Test	Results	REMARKS
7.3.2 (1)	Pre- and Post- Stress Electrical Test (TEST)	Per Spec	1	500	0/500	
7.3.3 (2)	Pre-conditioning (PC)	PER JESD22 A-113 N/A for Axial	1	308	0/308	
7.3.5.1 (3)	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	1	500	0/500	
7.3.5.4 (5)	High Temperature Reverse Bias (HTRB)	T=150°C Vc=50V, PER MIL-STD-750-1 M1038 Method A				
	Pretest		1	77	0/77	
	@ 500 Hours	T=150°C Vc=50V, PER MIL-STD-750-1 M1038 Method A	1	77	0/77	
	Final 1000 Hours	T=150°C Vc=50V, PER MIL-STD-750-1 M1038 Method A	1	77	0/77	
	Steady State Operational(SSOP)	Iz max, PER MIL-STD-750-1 M1038 Condition B(Zeners)	1	77	N/A	For Zeners only
(6)	High Temperature Gate Bias (HTGB)	T=175°C Vg=20V, PER JESD22 A-108				
	Pretest		1	77	N/A	
	@ 500 Hours	T=175°C Vg=20V, PER JESD22 A-108	1	77	N/A	
	Final 1000 Hours	T=175°C Vg=20V, PER JESD22 A-108	1	77	N/A	
7.3.5.5 (7)	Temperature Cycling (TC)	T=-65°C-150°C, PER JESD22 A-104				
	Pretest		1	77	0/77	
	@ 500 Cycles	T=-65°C-150°C, PER JESD22 A-104	1	77	0/77	
	Final 1000 Cycles	T=-65°C-150°C, PER JESD22 A-104	1	77	0/77	
	Temperature Cycling Hot Test (TCHT)	125°C test after TC, followed by decap and wire pull from 5 devices, PER JESD22 A-104 Appendix6	1	77	N/A	For MOSFET with internal bond wire sizes 5mil diameter and less.
	Wire Bond Integrity(WBI)	PER MIL-STD-750, Method 2037	1	5	0/5	
7.3.5.6 (8-1)	Autoclave (AC)	T=121°C, RH=100%, 15psig, PER JESD22 A-102	1	77	0/77	96hrs
	Unbiased Highly Accelerated Stress Test(UHAST)	t=96hrs, TA=130°C, RH=85%, PER JESD22 A-118	1	77	N/A	(Optional)
7.3.5.7 (9a)	Highly Accelerated Stress Test(HAST)	T=130°C, RH=85%, Vd=40V, PER JESD22 A-110	1	77	N/A	96hrs
7.3.5.7 (9)	High Humidity High Temp. Reverse Bias(H ³ TRB)	T=85°C, RH=85%, Vc=40V, PER JESD22 A-101	1	77		(Optional)
	Pretest		1	77	0/77	
	@ 500 Hours	T=85°C, RH=85%, Vc=40V, PER JESD22 A-101	1	77	0/77	
	Final 1000 Hours	T=85°C, RH=85%, Vc=40V, PER JESD22 A-101	1	77	0/77	
7.3.5.8 (10)	Intermittent Operational Life(IOL)	Vc=20V , Ic=10mA; PER MIL-STD-750 METHOD 1037				2mins on/off 15000cycles
	Pretest		1	77	0/77	
	@ 7560 Cycles	PER MIL-STD-750 METHOD 1037	1	77	0/77	
	Final 15000 Cycles	PER MIL-STD-750 METHOD 1037	1	77	0/77	
(10a)	Power and Temperature Cycle (PTC)	PER JESD22 A-105	1	77	N/A	(Optional)
7.3.5.10 (12)	Destructive Physical Analysis (DPA)	PER AEC-Q101-004 Section 4	1	4	0/4	
7.3.5.14 (16)	Resistance to Solder Heat (RSH)	PER JESD22 A-111 (SMD), B-106 (PTH)	1	30	0/30	260°C @30sec
7.3.5.15 (17)	Solderability (SD)	PER J-STD-002	1	10	0/10	245°C @5sec
Summary: The lot has passed 1000hrs hi-rel tests.						
Submitted by: Sean Huang 05/26/16 Approved by: Adam Gu 05/26/16						

Q-Form Q014-4,Rev.L



SHANGHAI KAIHONG ELECTRONIC CO.,LTD

Reliability Test Summary

FACTORY:		PART NUMBER : BC847PNQ-7-F SWR1603047		CUSTOMER:		
		Package Description : SOT-363		DIODES INC.:		
LABORATORY (If Different):		PART DESCRIPTION :Phenitex wafer:X93342+A5335G23H_857 BIN2 50180822NI+5ACY-2575, 1.0mil Cu wire				
DW-008 (AEC Q101) Test#	Test Description	Test Conditions	#Lots	#To Test	Results	REMARKS
7.3.2 (1)	Pre- and Post- Stress Electrical Test (TEST)	Per Spec	1	500	0/500	
7.3.3 (2)	Pre-conditioning (PC)	PER JESD22 A-113 N/A for Axial	1	308	0/308	
7.3.5.1 (3)	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	1	500	0/500	
7.3.5.4 (5)	High Temperature Reverse Bias (HTRB)	T=150°C Vc=50V, PER MIL-STD-750-1 M1038 Method A				
	Pretest		1	77	0/77	
	@ 500 Hours	T=150°C Vc=50V, PER MIL-STD-750-1 M1038 Method A	1	77	0/77	
	Final 1000 Hours	T=150°C Vc=50V, PER MIL-STD-750-1 M1038 Method A	1	77	0/77	
	Steady State Operational(SSOP)	Iz max, PER MIL-STD-750-1 M1038 Condition B(Zeners)	1	77	N/A	For Zeners only
(6)	High Temperature Gate Bias (HTGB)	T=175°C Vg=20V, PER JESD22 A-108				
	Pretest		1	77	N/A	
	@ 500 Hours	T=175°C Vg=20V, PER JESD22 A-108	1	77	N/A	
	Final 1000 Hours	T=175°C Vg=20V, PER JESD22 A-108	1	77	N/A	
7.3.5.5 (7)	Temperature Cycling (TC)	T=-65°C-150°C, PER JESD22 A-104				
	Pretest		1	77	0/77	
	@ 500 Cycles	T=-65°C-150°C, PER JESD22 A-104	1	77	0/77	
	Final 1000 Cycles	T=-65°C-150°C, PER JESD22 A-104	1	77	0/77	
	Temperature Cycling Hot Test (TCHT)	125°C test after TC, followed by decap and wire pull from 5 devices, PER JESD22 A-104 Appendix6	1	77	N/A	For MOSFET with internal bond wire sizes 5mil diameter and less.
	Wire Bond Integrity(WBI)	PER MIL-STD-750, Method 2037	1	5	0/5	
7.3.5.6 (8-1)	Autoclave (AC)	T=121°C, RH=100%, 15psig, PER JESD22 A-102	1	77	0/77	96hrs
	Unbiased Highly Accelerated Stress Test(UHAST)	t=96hrs, TA=130°C, RH=85%, PER JESD22 A-118	1	77	N/A	(Optional)
7.3.5.7 (9a)	Highly Accelerated Stress Test(HAST)	T=130°C, RH=85%, Vd=40V, PER JESD22 A-110	1	77	0/77	96hrs
7.3.5.7 (9)	High Humidity High Temp. Reverse Bias(H ³ TRB)	T=85°C, RH=85%, Vc=40V, PER JESD22 A-101	1	77	N/A	(Optional)
	Pretest		1	77	N/A	
	@ 500 Hours	T=85°C, RH=85%, Vc=40V, PER JESD22 A-101	1	77	N/A	
	Final 1000 Hours	T=85°C, RH=85%, Vc=40V, PER JESD22 A-101	1	77	N/A	
7.3.5.8 (10)	Intermittent Operational Life(IOL)	Vc=20V , Ic=10mA; PER MIL-STD-750 METHOD 1037				2mins on/off 15000cycles
	Pretest		1	77	0/77	
	@ 7560 Cycles	PER MIL-STD-750 METHOD 1037	1	77	0/77	
	Final 15000 Cycles	PER MIL-STD-750 METHOD 1037	1	77	0/77	
(10a)	Power and Temperature Cycle (PTC)	PER JESD22 A-105	1	77	N/A	(Optional)
7.3.5.10 (12)	Destructive Physical Analysis (DPA)	PER AEC-Q101-004 Section 4	1	4	0/4	
7.3.5.14 (16)	Resistance to Solder Heat (RSH)	PER JESD22 A-111 (SMD), B-106 (PTH)	1	30	0/30	260°C @30sec
7.3.5.15 (17)	Solderability (SD)	PER J-STD-002	1	10	0/10	245°C @5sec
Summary: The lot has passed 1000hrs hi-rel tests.						
Submitted by: Sean Huang 05/26/16 Approved by: Adam Gu 05/26/16						

Q-Form Q014-4,Rev.L



SHANGHAI KAIHONG ELECTRONIC CO.,LTD

Hi-Reliability Test Summary Report

FACTORY:		PART NUMBER: DMMT5551S-7-F SWR1112023		CUSTOMER:		
		Package: SOT26		DIODES INC.:		
LABORATORY (If Different):		PART DESCRIPTION: Phenitec wafer:C5983S 1GCV-6911,1.0 mil Copper wire+CEL-1702HF9 SKF				
DW-008 (AEC Q101) Test#	Test Description	Test Conditions	#Lots	#To Test	Results	REMARKS
7.3.2 (1)	PRE- AND POST- STRESS ELECTRICAL TEST (TEST)	Per Spec				
7.3.3 (2)	PRECONDITIONING (PC)	JSED22 A-113 N/A for Axial	1	308	0/308	
7.3.5.1 (3)	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	1	600	0/600	
7.3.5.2 (4)	PARAMETRIC VERIFICATION (PV)	Per Data Sheet Ta1=25C, Ta2=85C, Ta3=125, Ta4=150 BVCEO@IC= 10.0mA ICBO @VCB= 64V HFE@VCE= 5V,IC= 1A VCESAT@IC= 1A,IB= 100mA	N/A	N/A		
	Lot #2		N/A	N/A		
	Lot #3		N/A	N/A		
7.3.5.3	FORWARD SURGE	MIL-750D, Method 4066	N/A	N/A		
7.3.5.4 (5)	HIGH TEMP. REVERSE BIAS (HTRB)	T=150°C Vc=144V, PER JESD22 A-108	1	77		
	Pretest		1	77	0/77	
	@ 500 Hours	T=150°C Vc=144V, PER JESD22 A-108	1	77	0/77	
	Final 1000 Hours	T=150°C Vc=144V, PER JESD22 A-108	1	77	0/77	
7.3.5.4(6)	HIGH TEMP. Storage Life (HTS)	T=150°C , PER JESD22 A-103	1	45		
	Pretest		1	45	0/45	
	@ 500 Hours	T=150°C , PER JESD22 A-103	1	45	0/45	
	Final 1000 Hours	T=150°C , PER JESD22 A-103	1	45	0/45	
(6)	HIGH TEMP GATE BIAS (HTGB)	N/A for Diode	N/A	N/A		
7.3.5.5 (7)	TEMPERATURE CYCLING (TC)	T=-55°C-150°C, PER JESD22 A-104	1	77		
	Pretest		1	77	0/77	
	@ 500 Cycles	T=-55°C-150°C, PER JESD22 A-104	1	77	0/77	
	Final 1000 Cycles	T=-55°C-150°C, PER JESD22 A-104	1	77	0/77	
7.3.5.6 (8)	AUTOCLAVE (AC)	T=121°C 15PSIG 100%RH	1	77	0/77	96hrs
7.3.5.7 (9)	H ³ TRB	T=85°C RH=85% Vc=64V	N/A	N/A		
	Pretest		N/A	N/A		
	@ 500 Hours	T=85°C RH=85% Vc=64V	N/A	N/A		
	Final 1000 Hours	T=85°C RH=85% Vc=64V	N/A	N/A		
7.3.5.7 (9a)	Highly Accelerated Stress Test(HAST)	T=130°C RH=85% Vc=42V,PER JESD22 A-110	1	77		
	Pretest		1	77	0/77	
	After 96hrs	T=130°C RH=85% Vc=42V	1	77	0/77	
7.3.5.8 (10)	INTERMITTENT OPERATING LIFE (IOL)	Vc=30V Ic=10mA, PER MIL-STD-750 METHOD 1037	1	77		15000cycles@2mins on/off
	Pretest	MIL-STD-750 METHOD 1037	1	77	0/77	
	Midpoint 7560cycles	MIL-STD-750 METHOD 1037	1	77	0/77	
	After 15000cycles	MIL-STD-750 METHOD 1037	1	77	0/77	
(10a)	POWER AND TEMP. CYCLE (PTC)	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
(Optional)	Pretest	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	Midpoint	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	After	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
7.3.5.9 (11)	ESD CHARACTERIZATION (ESD)	PER AEC-Q101-001 & -002	N/A	N/A		MM 400V HBM 8KV
7.3.5.10 (12)	D.P.A. (DPA)	AEC Q101-004 SEC. 4	N/A	N/A		
7.3.5.11 (13)	PHYSICAL DIMENSION (PD)	PER JESD22 B-100	1	30	0/30	
7.3.5.12 (14)	TERMINAL STRENGTH (TS)	MIL-STD-750, Method 2036	N/A	N/A		
7.3.5.13 (15)	RESISTANCE TO SOLVENTS (RTS)	JESD22 B-107	N/A	N/A		
(16)	CONSTANT ACCELERATION (CA)	N/A, not hermetically sealed device.	N/A	N/A		
(17)	VIBRATION VARIABLE FREQUENCY (VVF)	N/A, not hermetically sealed device.	N/A	N/A		
(18)	MECHANICAL SHOCK (MS)	N/A, not hermetically sealed device.	N/A	N/A		
(19)	HERMETICITY (HER)	N/A, not hermetically sealed device.	N/A	N/A		
7.3.5.14 (20)	RESISTANCE TO SOLDER HEAT (RSH)	JESD22 B-106	1	45	0/45	260°C@10sec
7.3.5.15 (21)	SOLDERABILITY (SD)	J-STD-002	N/A	N/A		245°C@5sec
7.3.5.16 (22)	THERMAL RESISTANCE (TR)	JESD 24-3, 24-4, 24-6 as appropriate	N/A	N/A		
7.3.5.17 (23)	WIRE BOND STRENGTH (WBS)	MIL-STD-750 METHOD 2037	1	25	0/25	
7.3.5.18 (24)	BOND SHEAR (BS)	AEC-Q101-003	1	25	0/25	
7.3.5.19 (25)	DIE SHEAR (DS)	MIL-STD-750 METHOD 2017	1	25	0/25	
(26)	UNCLAMPED INDUCTIVE SWITCHING (UIS)	N/A, not for Diode	N/A	N/A		
(27)	DIELECTRIC INTEGRITY (DI)	N/A, not for Diode	N/A	N/A		
Summary:		This lot passed 1000hrs hi-rel test.				
Submitted by: Sean Huang 04/03/12		Approved by: Adam Gu 04/03/12				



SHANGHAI KAIHONG ELECTRONIC CO.,LTD

Hi-Reliability Test Summary Report

FACTORY:		PART NUMBER: DP350T05-7 SWR1209208		CUSTOMER:		
		Package: SOT23		DIODES INC.:		
LABORATORY (If Different):		PART DESCRIPTION: Phenitec wafer:AP964 2AHU-8526-01 #45,1.0mil Copper wire				
DW-008 (AEC Q101) Test#	Test Description	Test Conditions	#Lots	#To Test	Results	REMARKS
7.3.2 (1)	PRE- AND POST- STRESS ELECTRICAL TEST (TEST)	Per Spec				
7.3.3 (2)	PRECONDITIONING (PC)	JSED22 A-113 N/A for Axial	1	385	0/385	
7.3.5.1 (3)	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	1	500	0/500	
7.3.5.2 (4)	PARAMETRIC VERIFICATION (PV)	Per Data Sheet Ta1=25C, Ta2=85C, Ta3=125C, Ta4=150C BVCO @IC=100uA ICBO @VCB=200V HFE @Vce=10V,Ic=100mA Vcesat @Ic=50mA,Ib=5mA	N/A	25	0/25	
	Lot #2		N/A	N/A		
	Lot #3		N/A	N/A		
7.3.5.3	FORWARD SURGE	MIL-750D, Method 4066	N/A	N/A		
7.3.5.4 (5)	HIGH TEMP. REVERSE BIAS (HTRB)	T=150°C Vc=280V, PER JESD22 A-108	1	77		
	Pretest		1	77	0/77	
	@ 500 Hours	T=150°C Vc=280V, PER JESD22 A-108	1	77	0/77	
	Final 1000 Hours	T=150°C Vc=280V, PER JESD22 A-108	1	77	0/77	
7.3.5.4 (6)	HIGH TEMP. STORAGE LIFE (HTS)	T=150°C , PER JESD22A-103	1	45		
	Pretest		1	45	0/45	
	@ 500 Hours	T=150°C , PER JESD22A-103	1	45	0/45	
	Final 1000Hours	T=150°C , PER JESD22A-103	1	45	0/45	
(6)	HIGH TEMP GATE BIAS (HTGB)	N/A for Diode	N/A	N/A		
7.3.5.5 (7)	TEMPERATURE CYCLING (TC)	T=-55°C-150°C, PER JESD22 A-104	1	77		
	Pretest		1	77	0/77	
	@ 500 Cycles	T=-55°C-150°C, PER JESD22 A-104	1	77	0/77	
	Final 1000 Cycles	T=-55°C-150°C, PER JESD22 A-104	1	77	0/77	
7.3.5.6 (8)	AUTOCLAVE (AC)	T=121°C 15PSIG 100%RH	1	77	0/77	96hrs
7.3.5.7 (9)	H ³ TRB	T=85°C RH=85% Vc=100V	1	77		
	Pretest		1	77	0/77	
	@ 500 Hours	T=85°C RH=85% Vc=100V	1	77	0/77	
	Final 1000 Hours	T=85°C RH=85% Vc=100V	1	77	0/77	
7.3.5.7 (9a)	Highly Accelerated Stress Test(HAST)	T=130°C RH=85% Vc=42V,PER JESD22 A-110	1	77		
	Pretest		1	77	0/77	
	After 96hrs	T=130°C RH=85% Vc=42V	1	77	0/77	
7.3.5.8 (10)	INTERMITTENTOPERATING LIFE (IOL)	Vc=30V Ic=10mA, PER MIL-STD-750 METHOD 1037	1	77		15000cycles@2mins on/off
	Pretest	MIL-STD-750 METHOD 1037	1	77	0/77	
	Midpoint	MIL-STD-750 METHOD 1037	1	77	0/77	
	After	MIL-STD-750 METHOD 1037	1	77	0/77	
(10a)	POWER AND TEMP. CYCLE (PTC)	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
(Optional)	Pretest	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	Midpoint	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	After	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
7.3.5.9 (11)	ESD CHARACTERIZATION (ESD)	PER AEC-Q101-001 & -002	N/A	N/A	0/10 0/10	MM 400V HBM 8KV
7.3.5.10 (12)	D.P.A. (DPA)	AEC Q101-004 SEC. 4	N/A	N/A		
7.3.5.11 (13)	PHYSICAL DIMENSION (PD)	PER JESD22 B-100	N/A	N/A		
7.3.5.12 (14)	TERMINAL STRENGTH (TS)	MIL-STD-750, Method 2036	N/A	N/A		
7.3.5.13 (15)	RESISTANCE TO SOLVENTS (RTS)	JESD22 B-107	N/A	N/A		
(16)	CONSTANT ACCELERATION (CA)	N/A, not hermetically sealed device.	N/A	N/A		
(17)	VIBRATION VARIABLE FREQUENCY (VVF)	N/A, not hermetically sealed device.	N/A	N/A		
(18)	MECHANICAL SHOCK (MS)	N/A, not hermetically sealed device.	N/A	N/A		
(19)	HERMETICITY (HER)	N/A, not hermetically sealed device.	N/A	N/A		
7.3.5.14 (20)	RESISTANCE TO SOLDER HEAT (RSH)	JESD22 B-106	1	45	0/45	260°C@10sec
7.3.5.15 (21)	SOLDERABILITY (SD)	J-STD-002	N/A	N/A		245°C@5sec
7.3.5.16 (22)	THERMAL RESISTANCE (TR)	JESD 24-3, 24-4, 24-6 as appropriate	N/A	N/A	0/10	287°C/W
7.3.5.17 (23)	WIRE BOND STRENGTH (WBS)	MIL-STD-750 METHOD 2037	N/A	N/A		
7.3.5.18 (24)	BOND SHEAR (BS)	AEC-Q101-003	N/A	N/A		
7.3.5.19 (25)	DIE SHEAR (DS)	MIL-STD-750 METHOD 2017	N/A	N/A		
(26)	UNCLAMPED INDUCTIVE SWITCHING (UIS)	N/A, not for Diode	N/A	N/A		
(27)	DIELECTRIC INTEGRITY (DI)	N/A, not for Diode	N/A	N/A		
Summary:		This lot passed 1000hrs hi-rel test.				
Submitted by: Sean Huang 01/04/13		Approved by: Susan Ding 01/04/13				



SHANGHAI KAIHONG ELECTRONIC CO.,LTD

Hi-Reliability Test Summary Report

FACTORY:		PART NUMBER: MMST5401-7-F SWR1112215		CUSTOMER:		
		Package: SOT323		DIODES INC.:		
LABORATORY (If Different):		PART DESCRIPTION: Phenitec Wafer:A5983F 1GCV-6917,1.0mil Cu wire + CEL-1702HF9 SK				
DW-008 (AEC Q101) Test#	Test Description	Test Conditions	#Lots	#To Test	Results	REMARKS
7.3.2 (1)	PRE- AND POST- STRESS ELECTRICAL TEST (TEST)	Per Spec				
7.3.3 (2)	PRECONDITIONING (PC)	JSED22 A-113 N/A for Axial	1	308	0/308	
7.3.5.1 (3)	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	1	600	0/600	
7.3.5.2 (4)	PARAMETRIC VERIFICATION (PV)	Per Data Sheet Ta1=25C, Ta2=85C, Ta3=125C, Ta4=150C ICBO @VCB=150V HFE @Vce=5V,Ic=50mA Vcesat @Ic=50mA,Ib=5mA	1	25	0/25	
	Lot #2		N/A	N/A		
	Lot #3		N/A	N/A		
7.3.5.3	FORWARD SURGE	MIL-750D, Method 4066	N/A	N/A		
7.3.5.4 (5)	HIGH TEMP. REVERSE BIAS (HTRB)	T=150°C Vc=128V, PER JESD22 A-108	1	77		
	Pretest		1	77	0/77	
	@ 500 Hours	T=150°C Vc=128V, PER JESD22 A-108	1	77	0/77	
	Final	T=150°C Vc=128V, PER JESD22 A-108	1	77	0/77	
7.3.5.4 (6)	HIGH TEMP. STORAGE LIFE (HTS)	T=150°C , PER JESD22A-103	1	45		
	Pretest		1	45	0/45	
	@ 500 Hours	T=150°C , PER JESD22A-103	1	45	0/45	
	Final 1000Hours	T=150°C , PER JESD22A-103	1	45	0/45	
(6)	HIGH TEMP GATE BIAS (HTGB)	N/A for Diode	N/A	N/A		
7.3.5.5 (7)	TEMPERATURE CYCLING (TC)	T=-55°C-150°C, PER JESD22 A-104	1	77		
	Pretest		1	77	0/77	
	@ 500 Cycles	T=-55°C-150°C, PER JESD22 A-104	1	77	0/77	
	Final 1000 Cycles	T=-55°C-150°C, PER JESD22 A-104	1	77	0/77	
7.3.5.6 (8)	AUTOCLAVE (AC)	T=121°C 15PSIG 100%RH	1	77	0/77	96hrs
7.3.5.7 (9)	H ³ TRB	T=85°C RH=85% Vc=60V	N/A	N/A		
	Pretest		N/A	N/A		
	@ 500 Hours	T=85°C RH=85% Vc=60V	N/A	N/A		
	Final 1000 Hours	T=85°C RH=85% Vc=60V	N/A	N/A		
7.3.5.7 (9a)	Highly Accelerated Stress Test(HAST)	T=130°C RH=85% Vc=42V,PER JESD22 A-110	1	77		
	Pretest		1	77	0/77	
	After 96hrs	T=130°C RH=85% Vc=42V	1	77	0/77	
7.3.5.8 (10)	INTERMITTENT OPERATING LIFE (IOL)	Vc=20V Ic=10mA, PER MIL-STD-750 METHOD 1037	1	77		15000cycles@2mins on/off
	Pretest	MIL-STD-750 METHOD 1037	1	77	0/77	
	Midpoint	MIL-STD-750 METHOD 1037	1	77	0/77	
	After	MIL-STD-750 METHOD 1037	1	77	0/77	
(10a)	POWER AND TEMP. CYCLE (PTC)	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
(Optional)	Pretest	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	Midpoint	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	After	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
7.3.5.9 (11)	ESD CHARACTERIZATION (ESD)	PER AEC-Q101-001 & -002	N/A	N/A	0/10 0/10	MM 400V HBM 8KV
7.3.5.10 (12)	D.P.A. (DPA)	AEC Q101-004 SEC. 4	N/A	N/A		
7.3.5.11 (13)	PHYSICAL DIMENSION (PD)	PER JESD22 B-100	N/A	N/A		
7.3.5.12 (14)	TERMINAL STRENGTH (TS)	MIL-STD-750, Method 2036	N/A	N/A		
7.3.5.13 (15)	RESISTANCE TO SOLVENTS (RTS)	JESD22 B-107	N/A	N/A		
(16)	CONSTANT ACCELERATION (CA)	N/A, not hermetically sealed device.	N/A	N/A		
(17)	VIBRATION VARIABLE FREQUENCY (VVF)	N/A, not hermetically sealed device.	N/A	N/A		
(18)	MECHANICAL SHOCK (MS)	N/A, not hermetically sealed device.	N/A	N/A		
(19)	HERMETICITY (HER)	N/A, not hermetically sealed device.	N/A	N/A		
7.3.5.14 (20)	RESISTANCE TO SOLDER HEAT (RSH)	JESD22 B-106	1	45	0/45	260°C@10sec
7.3.5.15 (21)	SOLDERABILITY (SD)	J-STD-002	N/A	N/A		245°C@5sec
7.3.5.16 (22)	THERMAL RESISTANCE (TR)	JESD 24-3, 24-4, 24-6 as appropriate	N/A	N/A	0/10	379°C/W
7.3.5.17 (23)	WIRE BOND STRENGTH (WBS)	MIL-STD-750 METHOD 2037	N/A	N/A		
7.3.5.18 (24)	BOND SHEAR (BS)	AEC-Q101-003	N/A	N/A		
7.3.5.19 (25)	DIE SHEAR (DS)	MIL-STD-750 METHOD 2017	N/A	N/A		
(26)	UNCLAMPED INDUCTIVE SWITCHING (UIS)	N/A, not for Diode	N/A	N/A		
(27)	DIELECTRIC INTEGRITY (DI)	N/A, not for Diode	N/A	N/A		
Summary:		This lot passed 1000hrs hi-rel test.				
Submitted by: Sean Huang 08/01/12		Approved by: Adam Gu 08/01/12				



SHANGHAI KAIHONG ELECTRONIC CO.,LTD

Hi-Reliability Test Summary Report

FACTORY:		PART NUMBER: MMST5551-7-F SWR1112136		CUSTOMER:		
		Package: SOT323		DIODES INC.:		
LABORATORY (If Different):		PART DESCRIPTION: KFAB wafer: C5983S 1GCV-6912,1.0 mil Cu wire + CEL-1702HF9 SK				
DW-008 (AEC Q101) Test#	Test Description	Test Conditions	#Lots	#To Test	Results	REMARKS
7.3.2 (1)	PRE- AND POST- STRESS ELECTRICAL TEST (TEST)	Per Spec				
7.3.3 (2)	PRECONDITIONING (PC)	JSED22 A-113 N/A for Axial	1	308	0/308	
7.3.5.1 (3)	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	1	500	0/500	
7.3.5.2 (4)	PARAMETRIC VERIFICATION (PV)	Per Data Sheet Ta1=25C, Ta2=85C, Ta3=125C, Ta4=150C ICBO @VCB=120V HFE @Vce=5V,Ic=50mA Vcesat @Ic=50mA,Ib=5mA	N/A	N/A	0/25	
	Lot #2		N/A	N/A		
	Lot #3		N/A	N/A		
7.3.5.3	FORWARD SURGE	MIL-750D, Method 4066	N/A	N/A		
7.3.5.4 (5)	HIGH TEMP. REVERSE BIAS (HTRB)	T=150°C Vc=144V, PER JESD22 A-108	1	77		
	Pretest		1	77	0/77	
	@ 500 Hours	T=150°C Vc=144V, PER JESD22 A-108	1	77	0/77	
	Final	T=150°C Vc=144V, PER JESD22 A-108	1	77	0/77	
(6)	HIGH TEMP GATE BIAS (HTGB)	N/A for Diode	N/A	N/A		
7.3.5.5 (7)	TEMPERATURE CYCLING (TC)	T=-55°C-150°C, PER JESD22 A-104	1	77		
	Pretest		1	77	0/77	
	@ 500 Cycles	T=-55°C-150°C, PER JESD22 A-104	1	77	0/77	
	Final 1000 Cycles	T=-55°C-150°C, PER JESD22 A-104	1	77	0/77	
7.3.5.6 (8)	AUTOCLAVE (AC)	T=121°C 15PSIG 100%RH	1	77	0/77	96hrs
7.3.5.7 (9)	H ² TRB	T=85°C RH=85% Vc=60V	N/A	N/A		
	Pretest		N/A	N/A		
	@ 500 Hours	T=85°C RH=85% Vc=60V	N/A	N/A		
	Final 1000 Hours	T=85°C RH=85% Vc=60V	N/A	N/A		
7.3.5.7 (9a)	Highly Accelerated Stress Test(HAST)	T=130°C RH=85% Vc=42V,PER JESD22 A-110	1	77		
	Pretest		1	77	0/77	
	After 96hrs	T=130°C RH=85% Vc=42V	1	77	0/77	
7.3.5.8 (10)	INTERMITTENTOPERATING LIFE (IOL)	Vc=30V Ic=10mA, PER MIL-STD-750 METHOD 1037	1	77		15000cycles@2mins on/off
	Pretest	MIL-STD-750 METHOD 1037	1	77	0/77	
	Midpoint	MIL-STD-750 METHOD 1037	1	77	0/77	
	After	MIL-STD-750 METHOD 1037	1	77	0/77	
(10a)	POWER AND TEMP. CYCLE (PTC)	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
(Optional)	Pretest	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	Midpoint	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
	After	JESD22 A-105, Per Table AEC-Q101, p11	N/A	N/A		
7.3.5.9 (11)	ESD CHARACTERIZATION (ESD)	PER AEC-Q101-001 & -002	N/A	N/A	0/10 0/10	MM 400V HBM 8KV
7.3.5.10 (12)	D.P.A. (DPA)	AEC Q101-004 SEC. 4	N/A	N/A		
7.3.5.11 (13)	PHYSICAL DIMENSION (PD)	PER JESD22 B-100	N/A	N/A		
7.3.5.12 (14)	TERMINAL STRENGTH (TS)	MIL-STD-750, Method 2036	N/A	N/A		
7.3.5.13 (15)	RESISTANCE TO SOLVENTS (RTS)	JESD22 B-107	N/A	N/A		
(16)	CONSTANT ACCELERATION (CA)	N/A, not hermetically sealed device.	N/A	N/A		
(17)	VIBRATION VARIABLE FREQUENCY (VVF)	N/A, not hermetically sealed device.	N/A	N/A		
(18)	MECHANICAL SHOCK (MS)	N/A, not hermetically sealed device.	N/A	N/A		
(19)	HERMETICITY (HER)	N/A, not hermetically sealed device.	N/A	N/A		
7.3.5.14 (20)	RESISTANCE TO SOLDER HEAT (RSH)	JESD22 B-106	1	45	0/45	260°C@10sec
7.3.5.15 (21)	SOLDERABILITY (SD)	J-STD-002	N/A	N/A		245°C@5sec
7.3.5.16 (22)	THERMAL RESISTANCE (TR)	JESD 24-3, 24-4, 24-6 as appropriate	N/A	N/A	0/10	
7.3.5.17 (23)	WIRE BOND STRENGTH (WBS)	MIL-STD-750 METHOD 2037	N/A	N/A		
7.3.5.18 (24)	BOND SHEAR (BS)	AEC-Q101-003	N/A	N/A		
7.3.5.19 (25)	DIE SHEAR (DS)	MIL-STD-750 METHOD 2017	N/A	N/A		
(26)	UNCLAMPED INDUCTIVE SWITCHING (UIS)	N/A, not for Diode	N/A	N/A		
(27)	DIELECTRIC INTEGRITY (DI)	N/A, not for Diode	N/A	N/A		
Summary:	This lot passed 1000hrs hi-rel test.					
Submitted by:	Sean Huang 26/03/13		Approved by: Susan Ding 26/03/13			



SHANGHAI KAIHONG ELECTRONIC CO.,LTD

Hi-Reliability Test Summary Report

FACTORY:		PART NUMBER: MMSTA06Q-7-F SWR1609156		CUSTOMER:		
		Package: SOT-323		DIODES INC.:		
LABORATORY (If Different):		PART DESCRIPTION: Phenitec wafer:DP006DE 6AHT-5275,Cu 1.0mil + CEL-1702HF9 SKF				
DW-008 (AEC Q101) Test#	Test Description	Test Conditions	#Lots	#To Test	Results	REMARKS
7.3.2 (1)	Pre- and Post- Stress Electrical Test (TEST)	Per Spec	1	500	0/500	
7.3.3 (2)	Pre-conditioning (PC)	PER JSED22 A-113 N/A for Axial	1	308	0/308	
7.3.5.1 (3)	EXTERNAL VISUAL (EV)	MIL-STD-750 METHOD 2071	1	500	0/500	
7.3.5.4 (5)	High Temperature Reverse Bias (HTRB)	T=150°C Vc=80V, PER MIL-STD-750-1 M1038 Method A				
	Pretest		1	77	0/77	
	@ 500 Hours	T=150°C Vc=80V, PER MIL-STD-750-1 M1038 Method A	1	77	0/77	
	Final 1000 Hours	T=150°C Vc=80V, PER MIL-STD-750-1 M1038 Method A	1	77	0/77	
	Steady State Operational(SSOP)	Iz max, PER MIL-STD-750-1 M1038 Condition B(Zeners)	1	77	N/A	For Zeners only
(6)	High Temperature Gate Bias (HTGB)	T=175°C Vg=20V, PER JESD22 A-108				
	Pretest		1	77	N/A	
	@ 500 Hours	T=175°C Vg=20V, PER JESD22 A-108	1	77	N/A	
	Final 1000 Hours	T=175°C Vg=20V, PER JESD22 A-108	1	77	N/A	
7.3.5.5 (7)	Temperature Cycling (TC)	T=-65°C-150°C, PER JESD22 A-104				
	Pretest		1	77	0/77	
	@ 500 Cycles	T=-65°C-150°C, PER JESD22 A-104	1	77	0/77	
	Final 1000 Cycles	T=-65°C-150°C, PER JESD22 A-104	1	77	0/77	
	Temperature Cycling Hot Test (TCHT)	125°C test after TC, followed by decap and wire pull from 5 devices, PER JESD22 A-104 Appendix6	1	77	N/A	For MOSFET with internal bond wire sizes 5mil diameter and less.
	Wire Bond Integrity(WBI)	PER MIL-STD-750, Method 2037	1	5	0/5	
7.3.5.6 (8-1)	Autoclave (AC)	T=121°C, RH=100%, 15psig, PER JESD22 A-102	1	77	0/77	96hrs
	Unbiased Highly Accelerated Stress Test(UHAST)	T=96hrs, TA=130°C, RH=85%, PER JESD22 A-118	1	77	N/A	(Optional)
7.3.5.7 (9a)	Highly Accelerated Stress Test(HAST)	T=130°C, RH=85%,Vc=42V, PER JESD22 A-110	1	77	0/77	96hrs
7.3.5.7 (9)	High Humidity High Temp. Reverse Bias(H ³ TRB)	T=85°C, RH=85%, Vc=100V, PER JESD22 A-101	1	77		(Optional)
	Pretest		1	77	N/A	
	@ 500 Hours	T=85°C, RH=85%, Vc=100V, PER JESD22 A-101	1	77	N/A	
	Final 1000 Hours	T=85°C, RH=85%, Vc=100V, PER JESD22 A-101	1	77	N/A	
7.3.5.8 (10)	Intermittent Operational Life(IOL)	Vc=20V Ic=10mA; PER MIL-STD-750 METHOD 1037				2mins on/off 15000cycles
	Pretest		1	77	0/77	
	@ 7560 Cycles	PER MIL-STD-750 METHOD 1037	1	77	0/77	
	Final 15000 Cycles	PER MIL-STD-750 METHOD 1037	1	77	0/77	
(10a)	Power and Temperature Cycle (PTC)	PER JESD22 A-105	1	77	N/A	(Optional)
7.3.5.10 (12)	Destructive Physical Analysis (DPA)	PER AEC-Q101-004 Section 4	1	4	0/4	
7.3.5.14 (16)	Resistance to Solder Heat (RSH)	PER JESD22 A-111 (SMD), B-106 (PTH)	1	30	0/30	260°C@10sec
7.3.5.15 (17)	Solderability (SD)	PER J-STD-002	1	10	N/A	245°C@5sec
Summary: The lot passed 1000hrs hi-rel test.						
Submitted by: Sean Huang 12/06/16			Approved by: Adam Gu 12/06/16			

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