

Process Change Notification

This is to inform you that a design and/or process change will be implemented to the affected product(s) and this notification is for your information and concurrence. This change is planned to take effect by 1st October, 2021.

Please contact your local Taiwan Semiconductor Field Quality Service or Customer Quality Engineer within 45 days of receipt of this notification if you require any additional data.

PCN No: PCN21007

Title: SMD Products Change of Encapsulation Material, Packing Material and Datasheet Revision

Issue Date: 2021/5/12

If you have any questions concerning this change, please contact:

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PCN Type: Encapsulation Material Change, Packing Material Change and Datasheet Revision

Effectivity:New datasheet available: 31th July, 2021Expected 1st order date (without packing code): 1st Oct, 2021Last Order Date (with packing code): 31th Dec, 2022Last Delivery Date(with packing code): 30th Jun, 2023**Product Category (Description):**

All diodes/rectifier devices in SMD packages: ABS, ABS-L, DBLS, DO-218AB, MBS, Micro SMA, SMA, SMB, SMC, PDFN56, SMPC, SMPC4.0, SMPC4.6U, SOD-123W, SOD-123HE, SOD-123FL, SOD-128, SMAF, Sub SMA, TO-252, TBS, Thin SMA, TO-263AB and YBS that are currently assembled and tested in Taiwan Semiconductor internal package assembly manufacturing facility and external package assembly subcontractors.

The full list products affected are listed in the "List of Affected Devices" section.

Description of Change:

Taiwan Semiconductor will implement halogen-free (green) epoxy molding for all SMD devices to be compliant to global environmental initiatives in line with IEC 61249-2-21.

Accordingly, the packing material will be standardized to 13 inch plastic reel.

In line with this change, the product datasheets will also be revised to simplify the ordering code.

1. Molding Compound

Package	From (Non Green / Green)	To (Green)	Remarks
DBLS	EME-1200 EK-1700G/ EK-1800G	EK-1700G/ EK-1800G	Green / Halogen Free
Sub SMA	EME-1100 EME-E110G	EME-E110G	Green / Halogen Free
TO-263AB	EME-1100/ EME-6650 EME-E110G/ EME-G630/ EME-E190	EME-E110G/ EME-G630/ EME-E190	Green / Halogen Free

Note: All of the products in above packages are already qualified using halogen-free compound and in mass production for long time.

2. Packing Method and Packing Material Change

Package	From	To	Remarks
ABS / ABS-L / Micro SMA / SOD-123W / SOD-123HE / SOD-123FL / SOD128 / SMPC / SMPC4.0 / SMPC4.6U / SMAF / Thin SMA / SMA / SMB / SMC / PDFN56	13/7 inch Plastic / Blue & Black 13/7 inch Paper / White	13 inch Plastic / Blue & Black	No potential risk in color differences
MBS	13 inch Paper / White	13 inch Plastic / Blue & Black	No potential risk in color differences

TO-263AB / DBLS	13 inch Plastic / Blue & Black 13 inch Paper / White Tube	13 inch Plastic / Blue & Black	No potential risk in color differences
Sub SMA	13/7 inch Plastic / Blue & Black 13/7 inch Paper / White 8/12 mm tape width different number of pieces on reel (1800, 3000, 7500, 10000)	13 inch Plastic / Blue & Black 8mm tape width 10000 pieces	No potential risk in color differences

Note: Detailed packing information can be accessed in TSC website.

3. Product Datasheet Revisions

Package	From (Current Data Sheet)	To (New Data Sheet)
DBLS / TO-263AB	Non Green / Green Ordering Information (With Packing Code) 13/7 inch Plastic & Paper Reel & Tube	Green Ordering Information (Without Packing Code) 13 inch Plastic Reel
Sub SMA	Non Green / Green Ordering Information (With Packing Code) 13/7 inch Plastic & Paper Reel	Green Ordering Information (Without Packing Code) 13 inch Plastic Reel
ABS / ABS-L / MBS / Micro SMA / SOD-123W / SOD-123HE / SOD-123FL / SOD-128 / Thin SMA/ SMAF/ SMA/ SMB/ SMC / SMPC / SMPC4.0 / SMPC4.6U / PDFN56	Ordering Information (With Packing Code) 13/7 inch Plastic & Paper Reel	Ordering Information (Without Packing Code) 13 inch Plastic Reel
TBS / YBS / TO-252 / DO-218AB	Ordering Information (With Packing Code)	Ordering Information (Without Packing Code)

SOD-123W / SOD-128 / Thin SMA (TVS Products Only)	Ordering Information (With Packing Code) 13/7 inch Plastic & Paper Reel None	Ordering Information (Without Packing Code) 13 inch Plastic Reel Meets ISO 7637-2 (Pulse 1/2a/3a/3b)
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Identification and Traceability:

Item	Identification
Traceability	Product date code

Qualification/Reliability Result:

Device/Package Qualification (according to AEC-Q101-D) for Green Compound

Item	Test Condition	Reference Standard	Sample Size	Result
External Visual (EV)	Per TSC SPEC.	JESD22-B-101	453*3	Pass
Parameter Verification (PV)	Electrical characterization @25°C	TSC SPEC.	25*3	Pass
High Temperature Reverse Bias (HTRB)	Bias=100% or 80% Rated VR /1008hrs	MIL-STD-750-1 M1038	77*3	Pass
Temperature Cycling (TC)	-55°C/ 15 min to 150°C/ 15 min + Delam check (or hot test) + DPA	JESD22-A-104	77*3	Pass
Autoclave (AC)	Ta=121±2°C 15Psig (1.057kgf/cm ²), RH=100%/96hrs	JESD22-A-102	77*3	Pass
Highly Accelerated Stress Test (HAST)	Ta: 130±2°C, R.H: 85±5% & Bias=100% Rated VR (if VR>42V, Bias=42V)/ 96hrs	JESD22-A-110	77*3	Pass
ESD (AEC)	HBM: (C=100pf R:1500Ω)/ 6 Pulses	AEC-Q101-001 JS-001	30*1	Pass
ESD (AEC)	CDM: (Field induced charge)/ 6 Pulses	AEC-Q101-005 JS-002	30*1	Pass
Destructive Physical Analysis (DPA)	Per AEC-Q101	AEC-Q101-004 Section 4	2*1	Pass
Physical Dimension (PD)	Cpk > 1.67	JESD22-B-100	30*1	Pass
Solderability (SD)	Solderability test temperature: 245°C ± 5°C (Pb-free)	J-STD-002 AEC-Q005	10*1	Pass
Thermal Resistance (TR)	Per TSC SPEC.	JESD24-3, 24-4, 24-6 as appropriate	10*1 or 5*1	Pass
Die Shear (DS)	AEC: Per TSC SPEC. Cpk > 1.67 or 1.33	MIL-STD-750 Method 2017	5*1	Pass

Intermittent Operational Life (IOL)	ON/2mins (3.5mins/ 5mins) Off /2mins (3.5mins/ 5mins)	MIL-STD-750 Method 1037 AEC-Q101 Table 2A	77*3	Pass
Resist. To Solder Heat (RSH)	Ta=260+/-5°C, 10 secs	JEDEC JESD22-A-111 (SMD), or B-106 (PTH)	30	Pass

Effect of Change:

There is no impact in product specification, functionality, quality, reliability.
Implementing the change to green compound will guarantee Taiwan Semiconductor commitment on environmental protection.

List of Affected Devices:

Package	Part Number		
DBL	DBL101G	DBL154G-T	DBL205G-T
	DBL102G	DBL155G	DBL206G
	DBL103G	DBL155G-T	DBL206G-T
	DBL104G	DBL156G	DBL207G
	DBL104G-T	DBL156G-T	DBL207G-T
	DBL105G	DBL157G	DBL208G
	DBL105G-T	DBL157G-T	DBL209G
	DBL106G	DBL158G	HDBL101G
	DBL106G-T	DBL159G	HDBL102G
	DBL107G	DBL201G	HDBL103G
	DBL107G-T	DBL202G	HDBL104G
	DBL151G	DBL203G	HDBL105G
	DBL152G	DBL204G	HDBL106G
	DBL153G	DBL204G-T	HDBL107G
DBL154G	DBL205G		
ABS	ABS10	ABS4	EABS1G
	ABS10-K	ABS4-K	EABS1J
	ABS10-T	ABS6	RABS20M
	ABS15J	ABS6-K	SBS24
	ABS15LJ	ABS6-T	SBS25
	ABS15M	ABS8	SBS26
	ABS2	ABS8-K	SBS34
	ABS20M	ABS8-T	SBS36
	ABS20M-T	EABS1D	
ABS-L	RABS15M		
MBS	MBS10	MBS4	MBS8
	MBS10-K	MBS6	MBS8-K
	MBS2	MBS6-K	RMB6S
	RMB2S	RMB4S	
DBLS	DBLS101G	DBLS154G-T	DBLS205G-T
	DBLS102G	DBLS155G	DBLS206G

	DBLS103G	DBLS155G-T	DBLS206G-T
	DBLS104G	DBLS156G	DBLS207G
	DBLS104G-T	DBLS156G-T	DBLS207G-T
	DBLS105G	DBLS157G	DBLS208G
	DBLS105G-T	DBLS157G-T	DBLS209G
	DBLS106G	DBLS158G	HDBLS101G
	DBLS106G-T	DBLS159G	HDBLS102G
	DBLS107G	DBLS201G	HDBLS103G
	DBLS107G-T	DBLS202G	HDBLS104G
	DBLS151G	DBLS203G	HDBLS105G
	DBLS152G	DBLS204G	HDBLS106G
	DBLS153G	DBLS204G-T	HDBLS107G
	DBLS154G	DBLS205G	RDBLS207G
TBS	RTBS40M	TBS410	TBS610
	TBS406	TBS606	
	TBS408	TBS608	
DO-218AB	TLD5S10AH	TLD6S10AH	TLD8S10AH
	TLD5S11AH	TLD6S11AH	TLD8S11AH
	TLD5S12AH	TLD6S12AH	TLD8S12AH
	TLD5S13AH	TLD6S13AH	TLD8S13AH
	TLD5S14AH	TLD6S14AH	TLD8S14AH
	TLD5S15AH	TLD6S15AH	TLD8S15AH
	TLD5S16AH	TLD6S16AH	TLD8S16AH
	TLD5S17AH	TLD6S17AH	TLD8S17AH
	TLD5S18AH	TLD6S18AH	TLD8S18AH
	TLD5S20AH	TLD6S20AH	TLD8S20AH
	TLD5S22AH	TLD6S22AH	TLD8S22AH
	TLD5S24AH	TLD6S24AH	TLD8S24AH
	TLD5S26AH	TLD6S26AH	TLD8S26AH
	TLD5S28AH	TLD6S28AH	TLD8S28AH
	TLD5S30AH	TLD6S30AH	TLD8S30AH
	TLD5S33AH	TLD6S33AH	TLD8S33AH
	TLD5S36AH	TLD6S36AH	TLD8S36AH
	TLD5S40AH	TLD6S40AH	TLD8S40AH
	TLD5S43AH	TLD6S43AH	TLD8S43AH
YBS	RYBS30M	YBS2206G	YBS3005G
	YBS2204G	YBS2207G	YBS3006G
	YBS2205G	YBS3004G	YBS3007G
Micro SMA	ESH1DM	PU2BM	SS13M
	ESH1GM	PU2BMH	SS14M
	PU1BM	PU2DM	SS16M
	PU1BMH	PU2DMH	SS22M
	PU1DM	S1GM	SS23M
	PU1DMH	S1JM	SS24M
	RS1JM	RS1KM	ESH1JM
PDFN56	TSN520M60	TSN525M60	
SMA	SK24A-T	SK26A-T	SK210A-T
	SK34A-T	SK36A-T	SK310A-T

SMB	ES2D-T	HS3GB-K	S2K-T
	ES2G-T	HS3JB-K	S2M-T
	ES2J-T	HS3KB-K	S3DB-K
	ES3DB-A	HS3MB-K	S3GB-K
	ES3GB-A	RS3DB-T	S3JB-K
	ES3JB-A	RS3GB-T	S3KB-K
	HS2D-T	RS3JB-T	S3MB-K
	HS2G-T	RS3KB-T	RS2D-T
	HS2J-T	RS3MB-T	RS2G-T
	HS2K-T	S2D-T	RS2J-T
	HS2M-T	S2G-T	RS2K-T
	HS3DB-K	S2J-T	RS2M-T
	SMC	ES3D-A	RS3B-K
ES3G-A		RS3D-K	5.0SMDJ18A
ES3J-A		RS3G-K	5.0SMDJ20A
S3A-T		RS3J-K	5.0SMDJ22A
S3B-T		RS3K-K	5.0SMDJ24A
S3D-T		RS3M-K	5.0SMDJ26A
S3G-T		S5AC-K	5.0SMDJ28A
S3J-T		S5BC-K	5.0SMDJ30A
S3K-T		S5DC-K	5.0SMDJ33A
S3M-T		S5GC-K	5.0SMDJ36A
ES5D-T		S5JC-K	5.0SMDJ40A
ES5G-T		S5KC-K	5.0SMDJ43A
ES5J-T		S5MC-K	5.0SMDJ45A
HS3D-K		S8GC-T	5.0SMDJ48A
HS3G-K		S8JC-T	5.0SMDJ51A
HS3J-K		S8KC-T	5.0SMDJ54A
HS3K-K		S8MC-T	5.0SMDJ58A
HS3M-K		RS5D-T	5.0SMDJ60A
HS5D-A		RS5G-T	5.0SMDJ64A
HS5G-A		RS5J-T	5.0SMDJ70A
HS5J-K		RS5K-T	5.0SMDJ75A
HS5K-K		RS5M-T	5.0SMDJ78A
HS5M-K		5.0SMDJ100A	5.0SMDJ85A
RS3A-K	5.0SMDJ16A	5.0SMDJ90A	
SMAF	ES1DF-T	HS2GAF-T	RS2KAF-T
	ES1GF-T	HS2JAF-T	RS2MAF-T
	ES1JF-T	HS2KAF-T	S1DF-T
	ES2DAF-T	HS2MAF-T	S1GF-T
	ES2GAF-T	RS1DF-T	S1JF-T
	ES2JAF-T	RS1GF-T	S1KF-T
	HS1DF-T	RS1JF-T	S1MF-T
	HS1GF-T	RS1KF-T	S2DAF-T
	HS1JF-T	RS1MF-T	S2GAF-T
	HS1KF-T	RS2DAF-T	S2JAF-T
	HS1MF-T	RS2GAF-T	S2KAF-T
	HS2DAF-T	RS2JAF-T	S2MAF-T

SMPC (TO-277A)	TPAR3D	TPUH6D	TSP15H150S
	TPAR3G	TPUH6J	TSP15H200S
	TPAR3J	TSP10H200S	TSP15U100S
	TPAU3D	TSP10H45S	TSP15U120S
	TPAU3G	TSP10H60S	TSP15U50S
	TPAU3J	TSP10U100S	TSP20U60S
	TPMR10D	TSP10U120S	TSP3H150S
	TPMR10G	TSP10U45S	TSP8A100S
	TPMR10J	TSP10U60S	UG305P
	TPMR6G	TSP12U120S	TSP15H120S
	TPMR6J		
SMPC4.0	TSPB10U45S	TSPB15U50S	TSPB5H120S
	TSPB15U100S	TSPB20U80S	TSPB5H150S
	TSPB15U45S	TSPB5H100S	
SMPC4.6U (TO-277A)	TSUP10M45SH	TUAS8M	1K5SMPC24APH
	TSUP10M60SH	TUAU6GH	1K5SMPC27APH
	TSUP15M45SH	TUAU6JH	1K5SMPC30APH
	TSUP15M60SH	1K5SMPC12APH	1K5SMPC33APH
	TSUP5M45SH	1K5SMPC13APH	1K5SMPC36APH
	TSUP5M60SH	1K5SMPC15APH	1K5SMPC39APH
	TUAS8D	1K5SMPC16APH	1K5SMPC43APH
	TUAS8G	1K5SMPC18APH	1K5SMPC47APH
	TUAS8J	1K5SMPC20APH	1K5SMPC51APH
	TUAS8K	1K5SMPC22APH	
SOD-123FL	ES1DFL	HS1MFL	RS2DFL
	ES1GFL	HS2DFL	RS2GFL
	ES1JFL	HS2GFL	RS2JFL
	ES2DFL	HS2JFL	RS2KFL
	ES2GFL	HS2KFL	RS2MFL
	ES2JFL	HS2MFL	S1GFL
	HS1AFL	RS1AFL	S1JFL
	HS1BFL	RS1BFL	S1MFL
	HS1DFL	RS1DFL	S2DFL
	HS1FFL	RS1GFL	S2GFL
	HS1GFL	RS1JFL	S2JFL
	HS1JFL	RS1KFL	S2KFL
	HS1KFL	RS1MFL	S2MFL
	SOD-123HE	RS1JLS	SS110LS
RS1KLS		SS115LS	TSSE3H60
RS1MLS		SS12LS	TSSE3U45
S1DLS		SS13LS	TSSE3U60
S1GLS		SS14LS	SS16LS
S1JLS		S1KLS	S1MLS
SOD-123W	BZD27C100PW	HS1DLW	SMF33A
	BZD27C110PW	HS1GLW	SMF36A
	BZD27C11PW	HS1JLW	SMF40A
	BZD27C120PW	HS1KLW	SMF43A
	BZD27C12PW	HS1MLW	SMF45A

	BZD27C130PW	HSDLW	SMF48A
	BZD27C13PW	HSGLW	SMF5.0A
	BZD27C150PW	HSJLW	SMF51A
	BZD27C15PW	HSKLW	SMF54A
	BZD27C160PW	HSMLW	SMF58A
	BZD27C16PW	RS1DLW	SMF6.0A
	BZD27C180PW	RS1GLW	SMF6.5A
	BZD27C18PW	RS1JLW	SMF60A
	BZD27C200PW	RS1KLW	SMF64A
	BZD27C20PW	RS1MLW	SMF7.0A
	BZD27C220PW	S15DLW	SMF7.5A
	BZD27C22PW	S15GLW	SMF70A
	BZD27C24PW	S15JLW	SMF75A
	BZD27C27PW	S15KLW	SMF78A
	BZD27C30PW	S15MLW	SMF8.0A
	BZD27C33PW	S1DLW	SMF8.5A
	BZD27C36PW	S1GLW	SMF85A
	BZD27C39PW	S1JLW	SMF9.0A
	BZD27C43PW	S1KLW	SMF90A
	BZD27C47PW	S1MLW	SMLW
	BZD27C51PW	SDLW	SS110LW
	BZD27C56PW	SGLW	SS115LW
	BZD27C62PW	SJLW	SS14LW
	BZD27C68PW	SKLW	SS16LW
	BZD27C75PW	SMF100A	SS210LW
	BZD27C82PW	SMF10A	SS215LW
	BZD27C91PW	SMF11A	SS220LW
	ES15DLW	SMF12A	SS24LW
	ES15GLW	SMF13A	SS26LW
	ES15JLW	SMF14A	SS310LW
	ES1DLW	SMF15A	SS315LW
	ES1GLW	SMF16A	SS320LW
	ES1JLW	SMF17A	SS34LW
	ESDLW	SMF18A	SS36LW
	ESGLW	SMF20A	TSDGLW
	ESJLW	SMF22A	TSSW3U45
	HS15DLW	SMF24A	TSSW3U60
	HS15GLW	SMF26A	UF1DLW
	HS15JLW	SMF28A	UF1GLW
	HS15KLW	SMF30A	UF1JLW
	HS15MLW		
SOD-128	ES1BFS	HS2MFS	SMA4S20AH
	ES1BFSH	HS2MFSH	SMA4S21AH
	ES1DFS	RS1DFS	SMA4S22AH
	ES1DFSH	RS1GFS	SMA4S24AH
	ES1GFS	RS1JFS	SMA4S25AH
	ES1GFSH	RS1KFS	SMA4S26AH
	ES1JFS	RS1MFS	SMA4S30AH

ES1JFSH	RS2DFS	SMA4S33AH	
ES2BFS	RS2DFSH	SMA4S36AH	
ES2BFSH	RS2GFS	SMA4S39AH	
ES2DFS	RS2GFSH	SMA4S40AH	
ES2DFSH	RS2JFS	SMA4S43AH	
ES2GFS	RS2JFSH	SMA4S47AH	
ES2GFSH	RS2KFS	SMA4S51AH	
ES2JFS	RS2KFSH	SMA4S56AH	
ES2JFSH	RS2MFS	SMA4S60AH	
ESH1DFSH	RS2MFSH	SMA6S12AH	
ESH2DFSH	RS3MFS	SMA6S15AH	
ESH3DFSH	S1DFS	SMA6S18AH	
HS1DFS	S1GFS	SMA6S20AH	
HS1DFSH	S1JFS	SMA6S21AH	
HS1GFS	S1KFS	SMA6S22AH	
HS1GFSH	S1MFS	SMA6S24AH	
HS1JFS	S2DFS	SMA6S25AH	
HS1JFSH	S2DFSH	SMA6S26AH	
HS1KFS	S2GFS	SMA6S30AH	
HS1KFSH	S2GFSH	SMA6S33AH	
HS1MFS	S2JFS	SMA6S36AH	
HS1MFSH	S2JFSH	SMA6S39AH	
HS2DFS	S2KFS	SMA6S40AH	
HS2DFSH	S2KFSH	SMA6S43AH	
HS2GFS	S2MFS	SMA6S47AH	
HS2GFSH	S2MFSH	SMA6S51AH	
HS2JFS	SMA4S12AH	SMA6S56AH	
HS2JFSH	SMA4S15AH	SMA6S60AH	
HS2KFS	SMA4S18AH	TSS83L45	
HS2KFSH			
Sub SMA	BZD17C100P	BZD27C20P	RS1GL
	BZD17C11P	BZD27C220P	RS1JL
	BZD17C120P	BZD27C22P	RS1KL
	BZD17C12P	BZD27C24P	RS1ML
	BZD17C13P	BZD27C27P	RSFAL
	BZD17C15P	BZD27C30P	RSFBL
	BZD17C16P	BZD27C33P	RSFDL
	BZD17C180P	BZD27C36P	RSFGL
	BZD17C18P	BZD27C39P	RSFJL
	BZD17C200P	BZD27C43P	RSFKL
	BZD17C220P	BZD27C47P	RSFML
	BZD17C24P	BZD27C51P	S1AL
	BZD17C27P	BZD27C56P	S1BL
	BZD17C33P	BZD27C62P	S1DL
	BZD17C36P	BZD27C68P	S1GL
	BZD17C39P	BZD27C75P	S1JL
	BZD17C43P	BZD27C82P	S1KL
	BZD17C47P	BZD27C91P	S1ML

	BZD17C51P	ES1AL	SS110L
	BZD17C62P	ES1BL	SS115L
	BZD17C68P	ES1CL	SS12L
	BZD17C75P	ES1DL	SS13L
	BZD27C100P	ES1FL	SS14L
	BZD27C10P	ES1GL	SS15L
	BZD27C110P	ES1HL	SS16L
	BZD27C11P	ES1JL	SS19L
	BZD27C120P	HS1AL	SS210L
	BZD27C12P	HS1BL	SS215L
	BZD27C130P	HS1DL	SS22L
	BZD27C13P	HS1FL	SS23L
	BZD27C150P	HS1GL	SS24L
	BZD27C15P	HS1JL	SS25L
	BZD27C160P	HS1KL	SS26L
	BZD27C16P	HS1ML	SS29L
	BZD27C180P	RS1AL	SS310L
	BZD27C18P	RS1BL	SS34L
	BZD27C200P	RS1DL	SS36L
Thin SMA	ES1BAL	RS1GAL	SMA4F12AH
	ES1BALH	RS1GALH	SMA4F15AH
	ES1DAL	RS1JAL	SMA4F18AH
	ES1DALH	RS1JALH	SMA4F20AH
	ES1GAL	RS1KAL	SMA4F21AH
	ES1GALH	RS1KALH	SMA4F22AH
	ES1JAL	RS1MAL	SMA4F24AH
	ES1JALH	RS1MALH	SMA4F25AH
	ES2BAL	RS2DAL	SMA4F26AH
	ES2BALH	RS2DALH	SMA4F30AH
	ES2DAL	RS2GAL	SMA4F33AH
	ES2DALH	RS2GALH	SMA4F36AH
	ES2GAL	RS2JAL	SMA4F39AH
	ES2GALH	RS2JALH	SMA4F40AH
	ES2JAL	RS2KAL	SMA4F43AH
	ES2JALH	RS2KALH	SMA4F47AH
	HS1DAL	RS2MAL	SMA4F51AH
	HS1DALH	RS2MALH	SMA4F56AH
	HS1GAL	S1DAL	SMA4F60AH
	HS1GALH	S1DALH	SMA6F12AH
	HS1JAL	S1GAL	SMA6F15AH
	HS1JALH	S1GALH	SMA6F18AH
	HS1KAL	S1JAL	SMA6F20AH
	HS1KALH	S1JALH	SMA6F21AH
	HS1MAL	S1KAL	SMA6F22AH
	HS1MALH	S1KALH	SMA6F24AH
	HS2DAL	S1MAL	SMA6F25AH
	HS2DALH	S1MALH	SMA6F26AH
	HS2GAL	S2DAL	SMA6F30AH

	HS2GALH	S2DALH	SMA6F33AH
	HS2JAL	S2GAL	SMA6F36AH
	HS2JALH	S2GALH	SMA6F39AH
	HS2KAL	S2JAL	SMA6F40AH
	HS2KALH	S2JALH	SMA6F43AH
	HS2MAL	S2KAL	SMA6F47AH
	HS2MALH	S2KALH	SMA6F51AH
	RS1DAL	S2MAL	SMA6F56AH
	RS1DALH	S2MALH	SMA6F60AH
TO-252 (D-PAK)	TSSD10L100SW	TSSD10L60SW	TSSD20L200SW
	TSSD10L150SW	TSSD20L100SW	TSSD20L45SW
	TSSD10L200SW	TSSD20L150SW	TSSD20L60SW
	TSSD10L45SW		
TO-263AB (D ² -PAK)	GPAS1001	MBRS20150CT-Y	SRAS2020
	GPAS1002	MBRS20200CT-Y	SRAS2030
	GPAS1003	MBRS2035CT	SRAS2040
	GPAS1004	MBRS2045CT	SRAS2050
	GPAS1005	MBRS2045CT-Y	SRAS2060
	GPAS1006	MBRS2050CT	SRAS2090
	GPAS1007	MBRS2060CT	SRAS8100
	MBRS10100	MBRS2060CT-Y	SRAS8150
	MBRS10100CT	MBRS2090CT	SRAS820
	MBRS10100CT-Y	MBRS20H100CT	SRAS830
	MBRS10150	MBRS20H150CT	SRAS840
	MBRS10150CT	MBRS20H200CT	SRAS850
	MBRS10150CT-Y	MBRS25100CT	SRAS860
	MBRS1035	MBRS25150CT	SRAS890
	MBRS1035CT	MBRS2535CT	SRS10100
	MBRS1045	MBRS2545CT	SRS10150
	MBRS1045CT	MBRS2550CT	SRS1020
	MBRS1045CT-Y	MBRS2560CT	SRS1030
	MBRS1050	MBRS2590CT	SRS1040
	MBRS1050CT	MBRS25H45CT	SRS1050
	MBRS1060	MBRS3045CT	SRS1060
	MBRS1060CT	MBRS30H45CT	SRS1090
	MBRS1060CT-Y	MBRS4060CT	SRS16100
	MBRS1090	MBRS6040CT	SRS1620
	MBRS1090CT	SFAS1008G	SRS1630
	MBRS10H100CT	SFAS801G	SRS1640
	MBRS10H150CT	SFAS802G	SRS1650
	MBRS10H200CT	SFAS803G	SRS1660
	MBRS15100CT	SFAS804G	SRS1690
	MBRS15100CT-Y	SFAS805G	SRS20100
	MBRS15150CT	SFAS806G	SRS20150
	MBRS15150CT-Y	SFAS807G	SRS2020
	MBRS15200CT-Y	SFAS808G	SRS2030
	MBRS1535CT	SFS1001G	SRS2040
	MBRS1545CT	SFS1002G	SRS2050

MBRS1545CT-Y	SFS1003G	SRS2060
MBRS1550CT	SFS1004G	SRS2090
MBRS1560CT	SFS1005G	TSD10H100CW
MBRS1560CT-Y	SFS1006G	TSD10H120CW
MBRS1590CT	SFS1007G	TSD10H150CW
MBRS15H45CT	SFS1008G	TSD10H200CW
MBRS16100	SFS1601G	TSD10L200CW
MBRS16150	SFS1602G	TSD20H100CW
MBRS1635	SFS1603G	TSD20H120CW
MBRS1645	SFS1604G	TSD20H150CW
MBRS1650	SFS1605G	TSD20H200CW
MBRS1660	SFS1606G	TSD30H100CW
MBRS1690	SFS1607G	TSD30H120CW
MBRS20100CT	SFS1608G	TSD30H150CW
MBRS20100CT-Y	SRAS20100	TSD30H200CW
MBRS20150CT	SRAS20150	UGS5J