



# Product Change Notification



Product Group: Diodes Division / September 13, 2019 / PCN-DD-022-2019 Rev 0

## Mold Compound change

**DESCRIPTION OF CHANGE:** Vishay Semiconductors announces the mold compound change from SG-8200DTV to EME-E-500HAC on the below TO-220 and TO-247 Part Numbers. The new mold compound is halogen free as the current one. Taking the chance of this announcement, some POD tolerances will be aligned to Jedec.

**CLASSIFICATION OF CHANGE:** Molding  
Form, Fit, Function

**REASON FOR CHANGE:** Discontinuation of SG-8200DTV Mold Compound.

**EXPECTED INFLUENCE ON QUALITY/RELIABILITY/PERFORMANCE:** There will be no effect on quality, reliability or electrical performance.

**PRODUCT CATEGORY:** Diodes & Rectifiers

**PART NUMBERS/SERIES/FAMILIES AFFECTED:**

Package	Family	Part Number	POD Drawing Update
TO-247	FREDS	VS-30CPU04HN3	
TO-247	FREDS	VS-30EPH06HN3	See note A
TO-247	FREDS	VS-30EPH06L-N3	
TO-247	FREDS	VS-60APH03L-N3	
TO-247	FREDS	VS-60APU04HN3	
TO-247	FREDS	VS-60APU06HN3	See note C
TO-247	FREDS	VS-60CPU06-F	
TO-247	FREDS	VS-60EPU04HN3	
TO-247	FREDS	VS-60EPU06HN3	See note A
TO-247	FREDS	VS-60EPU06L-N3	
TO-247	FREDS	VS-APH3006HN3	See note C
TO-247	FREDS	VS-APU3006HN3	See note C
TO-247	FREDS	VS-EPH3006HN3	See note A
TO-247	FREDS	VS-EPU3006HN3	See note A
TO-247	FREDS	VS-S1719	See note A
TO-247	FREDS	VS-S1761	See note C
TO-247	FREDS	VS-30EPU12LHN3	
TO-247	FREDS	VS-30EPU12L-N3	
TO-247	FREDS	VS-50EPU12LHN3	
TO-247	FREDS	VS-50EPU12L-N3	
TO-247	FREDS	VS-75EPU12LHN3	
TO-247	FREDS	VS-75EPU12L-N3	
TO-247	FREDS	VS-APH3006LHN3	

Package	Family	Part Number	POD Drawing Update
TO-247	FREDS	VS-APH3006L-N3	
TO-247	FREDS	VS-APU3006LHN3	
TO-247	FREDS	VS-APU3006L-N3	
TO-247	FREDS	VS-APU6006LHN3	
TO-247	FREDS	VS-CPU6006LHN3	
TO-247	FREDS	VS-CPU6006L-N3	
TO-247	FREDS	VS-E5PH3012L-N3	
TO-247	FREDS	VS-E5PH6012L-N3	
TO-247	FREDS	VS-E5PX3012L-N3	
TO-247	FREDS	VS-E5PX6012L-N3	
TO-247	FREDS	VS-EPH3006LHN3	
TO-247	FREDS	VS-EPH3006L-N3	
TO-247	FREDS	VS-EPH3007L-N3	
TO-247	FREDS	VS-EPH6007L-N3	
TO-247	FREDS	VS-EPU3006LHN3	
TO-247	FREDS	VS-EPU3006L-N3	
TO-247	FREDS	VS-EPU6006LHN3	
TO-247	FREDS	VS-EPU6006L-N3	
TO-247	FREDS	VS-EPX3007L-N3	
TO-247	FREDS	VS-EPX6007L-N3	
TO-247	HEXFREDS	VS-HFA16PB120HN3	See note A
TO-247	HEXFREDS	VS-HFA30PB120HN3	See note A
TO-247	HEXFREDS	VS-HFA50PA60CHN3	See note C
TO-247	HEXFREDS	VS-S1681	See note A
TO-247	STANDARD DIODES	VS-35APF06LHM3	
TO-247	STANDARD DIODES	VS-35APF06L-M3	
TO-247	STANDARD DIODES	VS-35APF12LHM3	
TO-247	STANDARD DIODES	VS-35APF12L-M3	
TO-247	STANDARD DIODES	VS-35EPF06LHM3	
TO-247	STANDARD DIODES	VS-35EPF06L-M3	
TO-247	STANDARD DIODES	VS-35EPF12LHM3	
TO-247	STANDARD DIODES	VS-35EPF12L-M3	
TO-247	STANDARD DIODES	VS-45APF06L-M3	
TO-247	STANDARD DIODES	VS-45APF12L-M3	
TO-247	STANDARD DIODES	VS-45APS08L-M3	
TO-247	STANDARD DIODES	VS-45APS12LHM3	
TO-247	STANDARD DIODES	VS-45APS12L-M3	
TO-247	STANDARD DIODES	VS-45APS16LHM3	
TO-247	STANDARD DIODES	VS-45APS16L-M3	
TO-247	STANDARD DIODES	VS-45EPF06LHM3	

Package	Family	Part Number	POD Drawing Update
TO-247	STANDARD DIODES	VS-45EPF06L-M3	
TO-247	STANDARD DIODES	VS-45EPF12LHM3	
TO-247	STANDARD DIODES	VS-45EPF12L-M3	
TO-247	STANDARD DIODES	VS-45EPS08L-M3	
TO-247	STANDARD DIODES	VS-45EPS12LHM3	
TO-247	STANDARD DIODES	VS-45EPS12L-M3	
TO-247	STANDARD DIODES	VS-45EPS16LHM3	
TO-247	STANDARD DIODES	VS-45EPS16L-M3	
TO-247	STANDARD DIODES	VS-65APF06LHM3	
TO-247	STANDARD DIODES	VS-65APF06L-M3	
TO-247	STANDARD DIODES	VS-65APF12LHM3	
TO-247	STANDARD DIODES	VS-65APF12L-M3	
TO-247	STANDARD DIODES	VS-65APS08L-M3	
TO-247	STANDARD DIODES	VS-65APS12LHM3	
TO-247	STANDARD DIODES	VS-65APS12L-M3	
TO-247	STANDARD DIODES	VS-65APS16LHM3	
TO-247	STANDARD DIODES	VS-65APS16L-M3	
TO-247	STANDARD DIODES	VS-65EPF06LHM3	
TO-247	STANDARD DIODES	VS-65EPF06L-M3	
TO-247	STANDARD DIODES	VS-65EPF12LHM3	
TO-247	STANDARD DIODES	VS-65EPF12L-M3	
TO-247	STANDARD DIODES	VS-65EPS08L-M3	
TO-247	STANDARD DIODES	VS-65EPS12HM-S1	
TO-247	STANDARD DIODES	VS-65EPS12LHM-S1	
TO-247	STANDARD DIODES	VS-65EPS12LHM3	
TO-247	STANDARD DIODES	VS-65EPS12L-M3	
TO-247	STANDARD DIODES	VS-65EPS16LHM3	
TO-247	STANDARD DIODES	VS-65EPS16L-M3	
TO-247	STANDARD DIODES	VS-90APF06L-M3	
TO-247	STANDARD DIODES	VS-90APF12L-M3	
TO-247	STANDARD DIODES	VS-90APS08L-M3	
TO-247	STANDARD DIODES	VS-90APS12L-M3	
TO-247	STANDARD DIODES	VS-90APS16L-M3	
TO-247	STANDARD DIODES	VS-90EPF06L-M3	
TO-247	STANDARD DIODES	VS-90EPF12L-M3	
TO-247	STANDARD DIODES	VS-90EPS08L-M3	
TO-247	STANDARD DIODES	VS-90EPS12L-M3	
TO-247	STANDARD DIODES	VS-90EPS16L-M3	
TO-247	THYRISTORS	VS-40TPS12AP-S1	See note C
TO-247	THYRISTORS	VS-40TPS12P-S1	See note C

Package	Family	Part Number	POD Drawing Update
TO-247	THYRISTORS	VS-30TPS12LHM3	
TO-247	THYRISTORS	VS-30TPS12L-M3	
TO-247	THYRISTORS	VS-30TPS16LHM3	
TO-247	THYRISTORS	VS-30TPS16L-M3	
TO-247	THYRISTORS	VS-40TPS12ALHM3	
TO-247	THYRISTORS	VS-40TPS12AL-M3	
TO-247	THYRISTORS	VS-40TPS12LHM3	
TO-247	THYRISTORS	VS-40TPS12L-M3	
TO-247	THYRISTORS	VS-40TPS16LHM3	
TO-247	THYRISTORS	VS-40TPS16L-M3	
TO-247	THYRISTORS	VS-50TPS12LHM3	
TO-247	THYRISTORS	VS-50TPS12L-M3	
TO-247	THYRISTORS	VS-50TPS12L-M-S1	
TO-247	THYRISTORS	VS-50TPS12AL-M3	
TO-247	THYRISTORS	VS-80TPS16L-M3	
TO-247	SCHOTTKY	VS-30CPQ035-N3	
TO-247	SCHOTTKY	VS-30CPQ040-N3	
TO-247	SCHOTTKY	VS-30CPQ045-N3	
TO-247	SCHOTTKY	VS-30CPQ050-N3	
TO-247	SCHOTTKY	VS-30CPQ060-N3	
TO-247	SCHOTTKY	VS-30CPQ080-N3	
TO-247	SCHOTTKY	VS-30CPQ090-N3	
TO-247	SCHOTTKY	VS-30CPQ100-N3	
TO-247	SCHOTTKY	VS-30CPQ140-N3	
TO-247	SCHOTTKY	VS-30CPQ150-N3	
TO-247	SCHOTTKY	VS-40CPQ035-N3	
TO-247	SCHOTTKY	VS-40CPQ040-N3	
TO-247	SCHOTTKY	VS-40CPQ045-N3	
TO-247	SCHOTTKY	VS-40CPQ050-N3	
TO-247	SCHOTTKY	VS-40CPQ060-N3	
TO-247	SCHOTTKY	VS-40CPQ060HN3	See note C
TO-247	SCHOTTKY	VS-40CPQ080-N3	
TO-247	SCHOTTKY	VS-40CPQ100-N3	
TO-247	SCHOTTKY	VS-40L15CW-N3	
TO-247	SCHOTTKY	VS-40L40CW-N3	
TO-247	SCHOTTKY	VS-40L45CW-N3	
TO-247	SCHOTTKY	VS-52CPQ030-N3	
TO-247	SCHOTTKY	VS-60CPQ150HN3	
TO-247	SCHOTTKY	VS-60CPQ150-N3	
TO-247	SCHOTTKY	VS-63CPQ100HN3	

Package	Family	Part Number	POD Drawing Update
TO-247	SCHOTTKY	VS-63CPQ100-N3	
TO-247	SCHOTTKY	VS-65PQ015-N3	
TO-247	SCHOTTKY	VS-72CPQ030-N3	
TO-247	SCHOTTKY	VS-80CPQ020-N3	
TO-247	SCHOTTKY	VS-80CPQ150-N3	
TO-247	SCHOTTKY	VS-MBR3035WT-N3	
TO-247	SCHOTTKY	VS-MBR3045WT-N3	
TO-247	SCHOTTKY	VS-MBR4045WT-N3	
TO-247	SCHOTTKY	VS-MBR4060WT-N3	
TO-247	SCHOTTKY	VS-MBR40L15CW-N3	
TO-247	SCHOTTKY	VS-MBR6045WT-N3	
TO-247	SCHOTTKY	VS-STPS30L60CW-N3	
TO-247	SCHOTTKY	VS-STPS40L15CW-N3	
TO-247	SCHOTTKY	VS-STPS40L40CW-N3	
TO-247	SCHOTTKY	VS-STPS40L45CW-N3	
TO-220	FRED	VS-15ETH06HN3	See note D
TO-220	FRED	VS-15ETL06HN3	See note D
TO-220	FRED	VS-15ETU12HN3	See note D
TO-220	FRED	VS-16CTU04HN3	See note E
TO-220	FRED	VS-30CTH02HN3	See note E
TO-220	FRED	VS-30ETH06-N-S1	See note D
TO-220	FRED	VS-30ETU12THN3	See note B
TO-220	FRED	VS-8ETH06HN3	See note D
TO-220	FRED	VS-8ETU04HN3	See note D
TO-220	FRED	VS-8ETU12HN3	See note D
TO-220	FRED	VS-E5TH3012-N3	See note B
TO-220	FRED	VS-E5TX3012-N3	See note B
TO-220	FRED	VS-ETH3007THN3	See note B
TO-220	FRED	VS-ETX3007THN3	See note B
TO-220	HEXFRED	VS-HFA08TB60HN3	See note D
TO-220	HEXFRED	VS-HFA25TB60HN3	See note D
TO-220	HEXFRED	VS-HFA30TA60CHN3	See note E
TO-220	STANDARD DIODES	VS-10ETF06THM3	See note B
TO-220	STANDARD DIODES	VS-10ETF12THM3	See note B
TO-220	STANDARD DIODES	VS-10ETS12THM3	See note B
TO-220	STANDARD DIODES	VS-20ATS12HM3	See note E
TO-220	STANDARD DIODES	VS-20ETF06THM3	See note B
TO-220	STANDARD DIODES	VS-20ETF12THM3	See note B
TO-220	STANDARD DIODES	VS-20ETS12THM3	See note B
TO-220	STANDARD DIODES	VS-20ETS16THM3	See note B

Package	Family	Part Number	POD Drawing Update
TO-220	THYRISTORS	VS-12TTS08HM3	See note E
TO-220	THYRISTORS	VS-25TTS12HM3	See note E
TO-220	THYRISTORS	VS-40TTS12HM3	See note E
TO-220	SCHOTTKY	VS-10TQ045HN3	See note D
TO-220	SCHOTTKY	VS-16CTQ060HN3	See note E
TO-220	SCHOTTKY	VS-16CTQ080HN3	See note E
TO-220	SCHOTTKY	VS-16CTQ100HN3	See note E
TO-220	SCHOTTKY	VS-18TQ035HN3	See note D
TO-220	SCHOTTKY	VS-18TQ040HN3	See note D
TO-220	SCHOTTKY	VS-18TQ045HN3	See note D
TO-220	SCHOTTKY	VS-20CTQ035HN3	See note E
TO-220	SCHOTTKY	VS-20CTQ040HN3	See note E
TO-220	SCHOTTKY	VS-20CTQ045HN3	See note E
TO-220	SCHOTTKY	VS-20TQ035THN3	See note B
TO-220	SCHOTTKY	VS-20TQ040THN3	See note B
TO-220	SCHOTTKY	VS-20TQ045THN3	See note B
TO-220	SCHOTTKY	VS-30CTQ035HN3	See note E
TO-220	SCHOTTKY	VS-30CTQ040HN3	See note E
TO-220	SCHOTTKY	VS-30CTQ045HN3	See note E
TO-220	SCHOTTKY	VS-43CTQ100-011HN3	
TO-220	SCHOTTKY	VS-43CTQ100HN3	See note E
TO-220	SCHOTTKY	VS-60CTQ150HN3	See note E
TO-220	SCHOTTKY	VS-6TQ035HN3	See note D
TO-220	SCHOTTKY	VS-6TQ040HN3	See note D
TO-220	SCHOTTKY	VS-6TQ045HN3	See note D
TO-220	SCHOTTKY	VS-95-9877PBF	See note E
TO-220	SCHOTTKY	VS-95-9878PBF	See note E
TO-220	SCHOTTKY	VS-95-9974PBF	See note D
TO-220	SCHOTTKY	VS-95-9975PBF	See note E
TO-220	SCHOTTKY	VS-95-9976PBF	See note E
TO-220	SCHOTTKY	VS-96-1205PBF	See note E
TO-220	SCHOTTKY	VS-MBR2035CTHN3	See note E
TO-220	SCHOTTKY	VS-MBR2045CTHN3	See note E

**Note A** : dimension E1 Min. will be aligned to JEDEC changing from 13.72mm to 13.46mm. Updated POD url: <http://www.vishay.com/docs/95253/to247mod.pdf>

**Note B** : dimension H1 Spec. will be aligned to JEDEC changing from 6.09~6.48 to 5.84~6.86. Updated POD url: <http://www.vishay.com/docs/96069/2to-220ac.pdf>

**Note C** : dimension E1 Min. will be aligned to JEDEC changing from 13.72mm to 13.46mm. Updated POD url: <http://www.vishay.com/docs/95223/to247ac.pdf>

**Note D** : dimension H1 Spec. will be aligned to JEDEC changing from 6.09~6.48 to 5.84~6.86. Updated POD url: <http://www.vishay.com/docs/95221/to220ac.pdf>

**Note E** : dimension H1 Spec. will be aligned to JEDEC changing from 6.09~6.48 to 5.84~6.86. Updated POD url: <http://www.vishay.com/docs/95222/to220ab.pdf>

**VISHAY BRAND(s):** Vishay Semiconductors

**TIME SCHEDULE:** Starting from November 13, 2019 Vishay will gradually start to ship the products with the new Mold Compound.

**SAMPLE AVAILABILITY:** On customer request

**PRODUCT IDENTIFICATION:** N/A

**QUALIFICATION DATA:** See annex 1

**This PCN is considered approved, without further notification, unless we receive specific customer written concerns before November 13, 2019 or as specified by contract**

**ISSUED BY:** FREDS, HEXFREDS, STANDARDS DIODES AND THYRISTORS Alessandro Bonaudo, Vishay Diodes Product Marketing  
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# ANNEX 1

P/N PACKAGE PROCESS Metalization Mold Compound FAB PROCESS	VS-6TQ035HN3 TO220 Al EME-E500HAC. Schottky	VS-HFA25TB60HN3 TO220 Al EME-E500HAC. Hexfred	VS-30ETU12THN3 TO220 Al EME-E500HAC. FRD	VS-25TTS12HM3 TO220 Al EME-E500HAC. SCR	VS-20ETS16THM3 TO220 Al EME-E500HAC. Rectifier	VS-HFA08PB60-N3 TO247 Al EME-E500HAC. Hexfred	VS-40L15CW-N3 TO247 Al EME-E500HAC. Schottky
<b>Test Item &amp; Condition</b>	<b>Duration</b>						
<b>HTRB</b>	Condition						
<b>Max Tj @ 100% Vr</b>	168 Hrs	0/77	0/77	0/77	0/77	0/77	0/77
	500 Hrs	0/77	0/77	0/77	0/77	0/77	0/77
	1000 Hrs	0/77	0/77	0/77	0/77	0/77	0/77
	2000 Hrs					0/77	
<b>Temperature Cycling</b> @-55°C / +150°C / 30min.	Condition						
	250 Cycles	0/77	0/77	0/77	0/77	0/77	0/77
	500 Cycles	0/77	0/77	0/77	0/77	0/77	0/77
	1000 Cycles	0/77	0/77	0/77	0/77	0/77	0/77
	2000 Cycles					0/77	
<b>UHAST</b> @Ta= 130°C , 85%R.H.	Condition						
	48 Hrs	0/77	0/77	0/77	0/77	0/77	0/77
	96 Hrs	0/77	0/77	0/77	0/77	0/77	0/77
<b>IOL</b> Delta Tj=100°C T0n/Toff >= 2min	Condition						
	500 Hrs	0/77	0/77	0/77	0/77	0/77	0/77
	1000 Hrs	0/77	0/77	0/77	0/77	0/77	0/77
<b>H3TRB</b> 85°C 85% HR @ 100V	Condition						
	168 Hrs		0/77		0/77		0/77
	500 Hrs		0/77		0/77		0/77
	1000 Hrs		0/77		0/77		0/77
<b>HAST</b> 130°C 85%HR @42V	Condition						
	96 Hrs	0/77		0/77		0/77	0/77
<b>Solder Dip (TH)</b> 280°C/10sec	Condition						
	96 Hrs	0/30	0/30	0/30	0/30	0/30	0/30
<b>Solderability</b>	Condition						
	96 Hrs	0/15	0/15	0/15	0/15	0/15	0/15

P/N PACKAGE PROCESS Metalization Mold Compound FAB PROCESS	VS-63CPQ100HN3 TO247 Al EME-E500HAC. Schottky	VS-EPU6006-N3 TO247 Al EME-E500HAC. FRED	VS-50TPS12LHM3 TO247 Al EME-E500HAC. SCR	VS-HFA30PB120HN3 TO247 Al EME-E500HAC. Hexfred	VS-76EPU12LHN3 TO247 Al EME-E500HAC. FRED	VS-65EPS16LHM3 TO247 Al EME-E500HAC. Rectifier
<b>Test Item &amp; Condition</b>	<b>Duration</b>					
<b>HTRB</b>	Condition					
<b>Max Tj @ 100% Vr</b>	168 Hrs	0/77	0/77	0/77	0/77	0/77
	500 Hrs	0/77	0/77	0/77	0/77	0/77
	1000 Hrs	0/77	0/77	0/77	0/77	0/77
	2000 Hrs					0/77
<b>Temperature Cycling</b> @-55°C / +150°C / 30min.	Condition					
	250 Cycles	0/77	0/77	0/77	0/77	0/77
	500 Cycles	0/77	0/77	0/77	0/77	0/77
	1000 Cycles	0/77	0/77	0/77	0/77	0/77
	2000 Cycles					0/77
<b>UHAST</b> @Ta= 130°C , 85%R.H.	Condition					
	48 Hrs	0/77	0/77	0/77	0/77	0/77
	96 Hrs	0/77	0/77	0/77	0/77	0/77
<b>IOL</b> Delta Tj=100°C T0n/Toff >= 2min	Condition					
	500 Hrs	0/77	0/77	0/77	0/77	0/77
	1000 Hrs	0/77	0/77	0/77	0/77	0/77
<b>H3TRB</b> 85°C 85% HR @ 100V	Condition					
	168 Hrs	0/77		0/77	0/77	
	500 Hrs	0/77		0/77	0/77	
	1000 Hrs	0/77		0/77	0/77	
<b>HAST</b> 130°C 85%HR @42V	Condition					
	96 Hrs		0/77		0/77	0/77
<b>Solder Dip (TH)</b> 280°C/10sec	Condition					
	96 Hrs	0/30	0/30	0/30	0/30	0/30
<b>Solderability</b>	Condition					
	96 Hrs	0/15	0/15	0/15	0/15	0/15