Technical Data
Data Sheet N1720, Rev. B

RoHS HF

SD560BP STANDARD RECTIFIER

SMB

Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Low Power Loss
- Built Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram

Mechanical Data

- Case: SMB molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.09 grams

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	SD560BP	Units
Maximum Peak Repetitive Reverse Voltage Maximum DC Blocking Voltage	V_{RRM} V_{DC}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum Average Forward Rectified Current in DC @T_C = 75°C	$I_{(AV)}$	5.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200	A
I^2t Rating for fusing (t < 8.3ms)	I^2t	166	A^2S
Maximum Instantaneous Forward Voltage* @I_F = 5.0A	V_F	1.2	V
Maximum DC Reverse Current* @T_A = 25°C At Rated DC Blocking Voltage* @T_A = 100°C	I_R	9.0 170	uA
Typical Junction Capacitance (Note 1)	Cj	32	pF
Typical Thermal Resistance Junction to Case (Note 2)	$R_{\theta JC}$	7.1	°C/W
Typical Thermal Resistance Junction to Lead (Note 2)	$R_{\theta JL}$	3.7	°C/W
Typical Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	43	°C/W
Operating Storage Temperature Range	T_{STG}	-65 to +175	°C
Operating Junction Temperature	T_J	-65 to +175	°C

* Pulse width < 300 µs, duty cycle < 2%
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance tested without heat sink.

Ratings and Characteristics Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

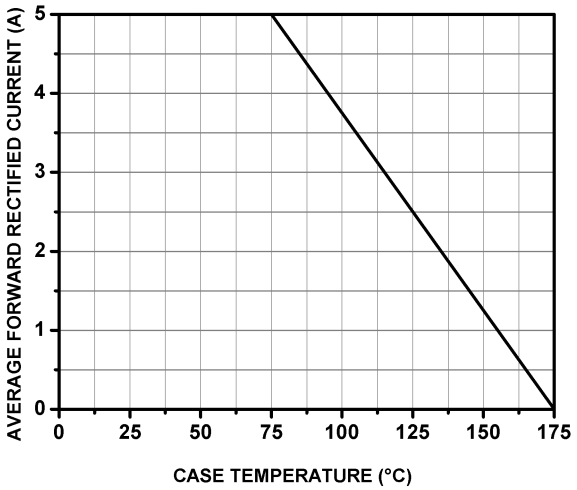


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

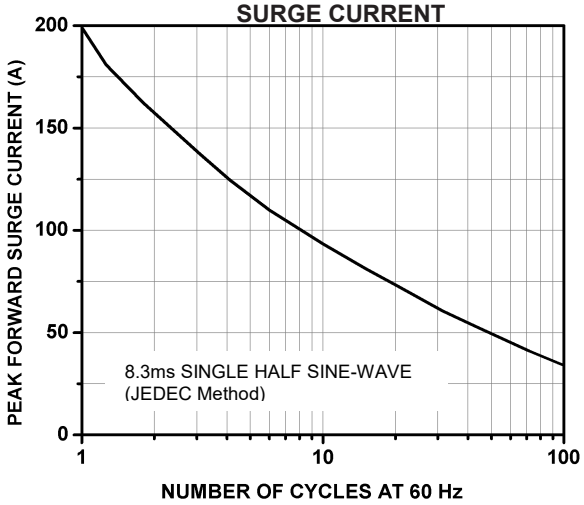


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

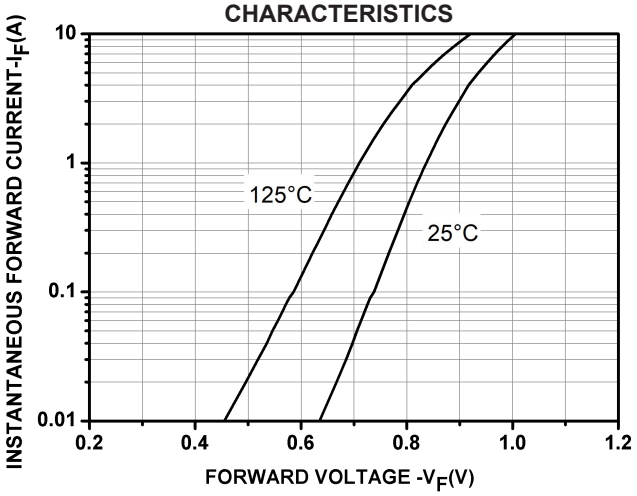


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

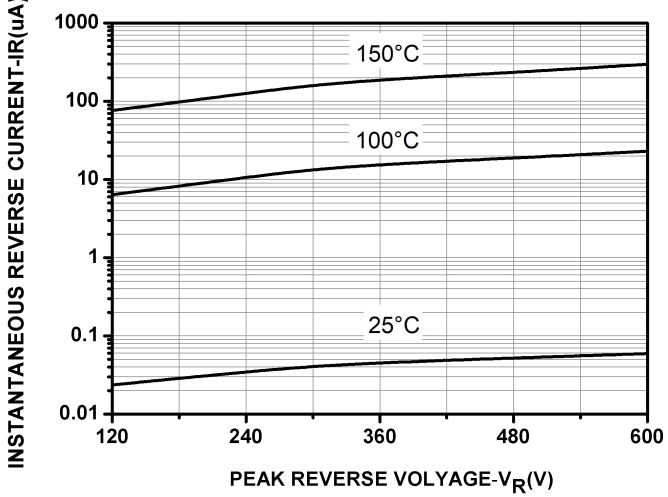
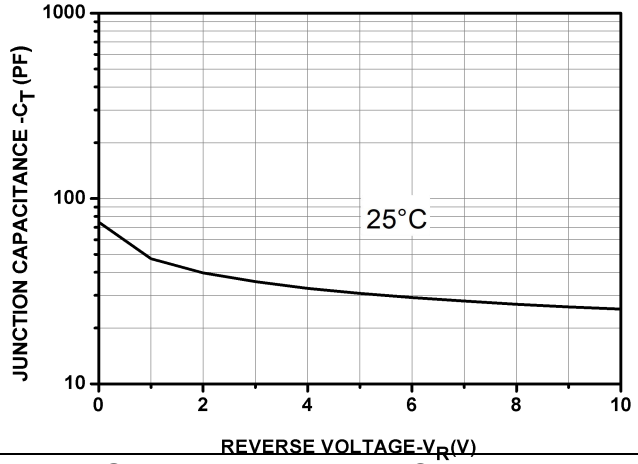


FIG. 5-TYPICAL JUNCTION CAPACITANCE



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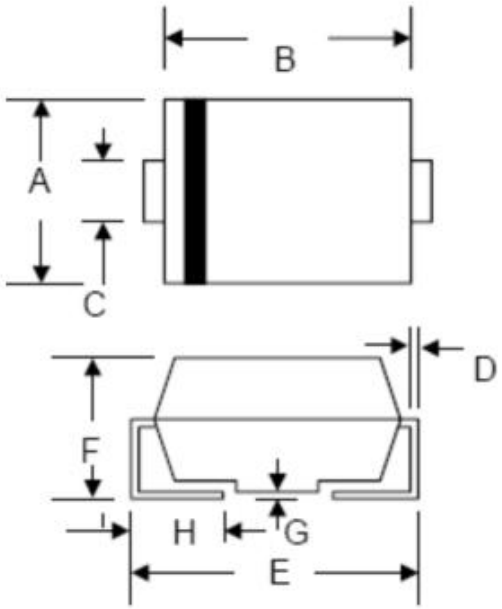
Mechanical Dimensions SMB



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	3.30	3.94	0.130	0.155
B	4.06	4.70	0.160	0.185
C	1.80	2.20	0.071	0.087
D	0.152	0.305	0.006	0.012
E	4.80	5.59	0.189	0.220
F	2.10	2.60	0.083	0.102
G	0.051	0.203	0.002	0.008
H	0.76	1.52	0.030	0.060

Ordering Information

Device	Package	Shipping
SD560BP	SMB(Pb-Free)	3000pcs / reel
SD560BPTR	SMB(Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

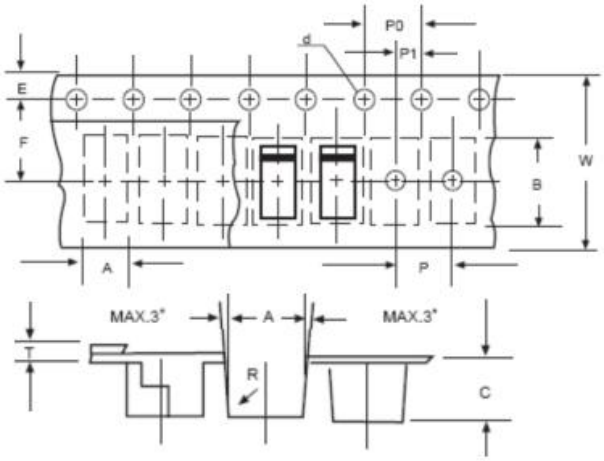
Marking Diagram

Where XXXXX is YYWWL

SD560BP = Part Name
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Carrier Tape Specification SMB



SYMBOL	Millimeters	
	Min.	Max.
A	3.99	4.19
B	5.72	5.92
C	3.23	3.43
d	1.40	1.60
E	1.40	1.60
F	5.60	5.70
P	7.90	8.10
P0	3.90	4.10
P1	1.90	2.10
T	-	0.60
W	11.80	12.20

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