

SD560B STANDARD RECTIFIER



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-0
- 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	SD560B	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 ² t Rating for fusing (t < 8.3ms)	I ² t	166	A ² S
Maximum Instantaneous Forward Voltage* @I _F = 5.0A	V _F	1.2	V
Maximum DC Reverse Current* At Rated DC Blocking Voltage* @T _A = 25°C @T _A = 100°C	I _R	9.0 170	uA
Typical Junction Capacitance (Note 1)	C _j	32	pF
Typical Thermal Resistance Junction to Case (Note 2)	R _{θJC}	7	°C/W
Typical Thermal Resistance Junction to Lead (Note 2)	R _{θJL}	3.6	°C/W
Typical Thermal Resistance Junction to Ambient (Note 2)	R _{θJA}	42	°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 from junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted.

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Ratings and Characteristics Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

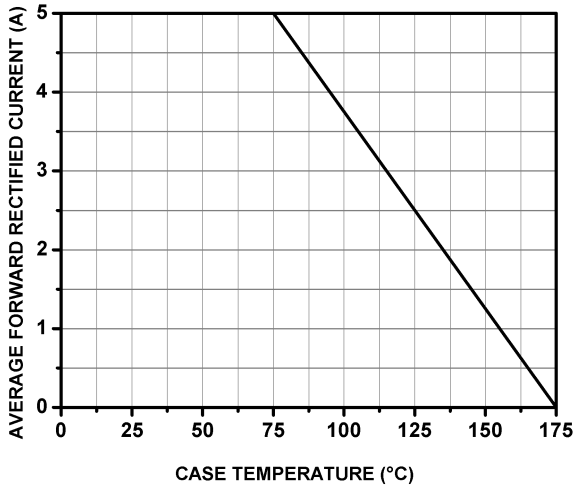


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

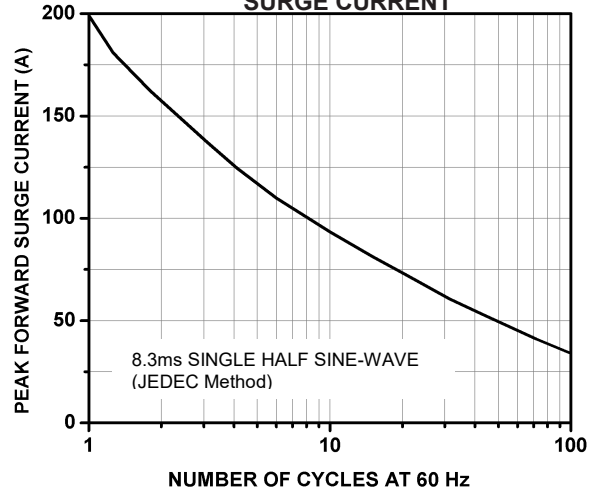


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

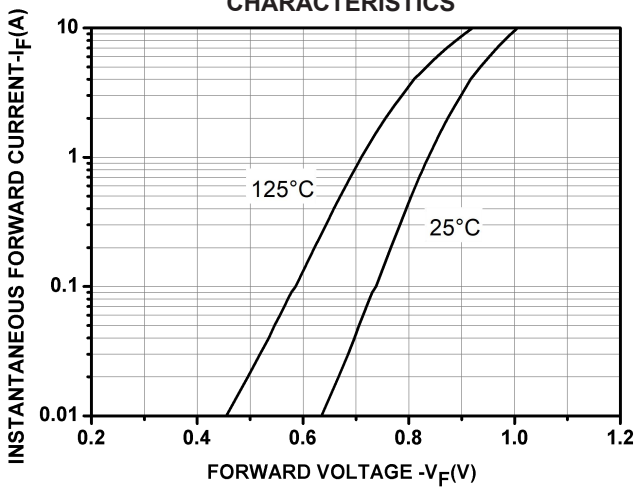


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

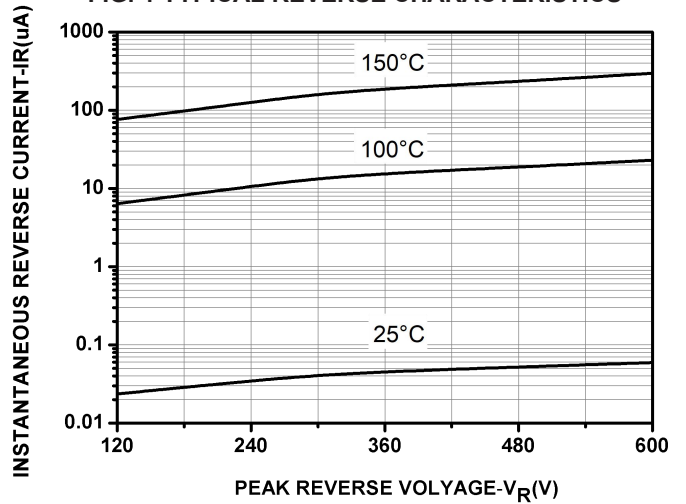
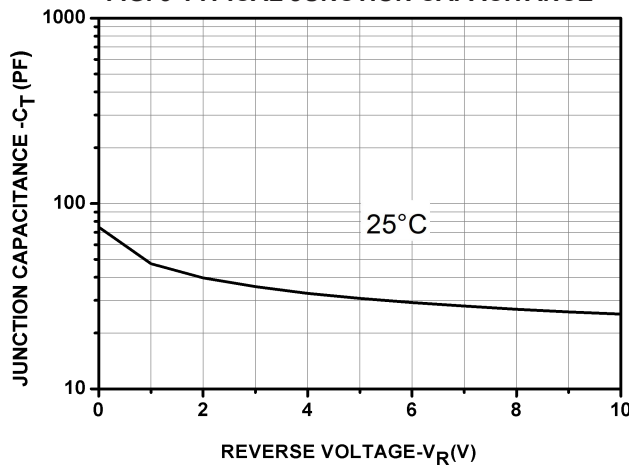
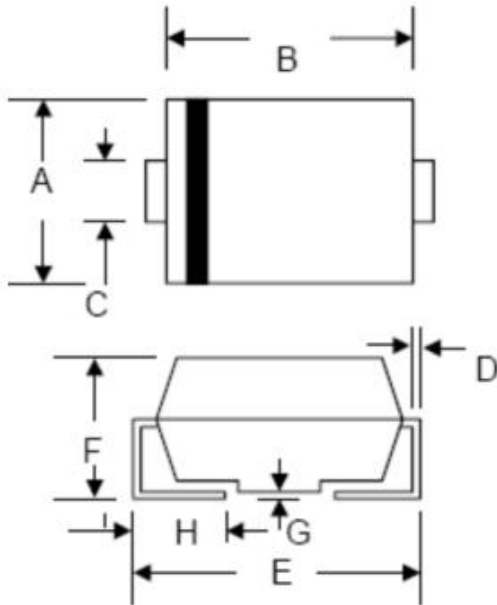


FIG. 5-TYPICAL JUNCTION CAPACITANCE



Mechanical Dimensions SMB



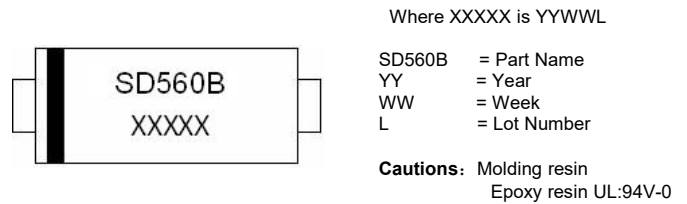
SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	3.30	3.94	0.130	0.155
B	4.06	4.70	0.160	0.185
C	1.80	2.20	0.071	0.087
D	0.152	0.305	0.006	0.012
E	4.80	5.59	0.189	0.220
F	2.10	2.60	0.083	0.102
G	0.051	0.203	0.002	0.008
H	0.76	1.52	0.030	0.060

Ordering Information

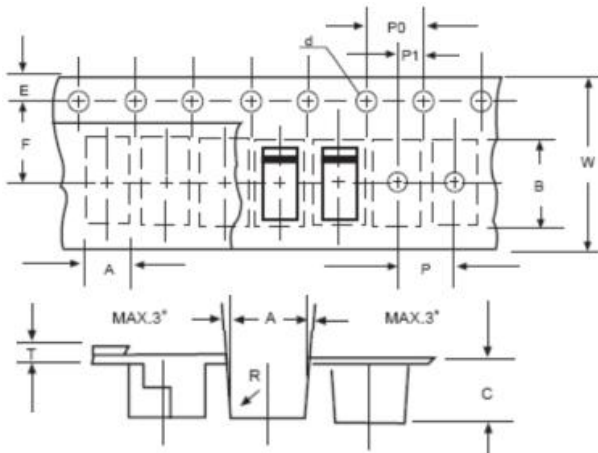
Device	Package	Shipping
SD560B	SMB	3000pcs / reel
SD560BTR	SMB	3000pcs / reel

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

Marking Diagram



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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