

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

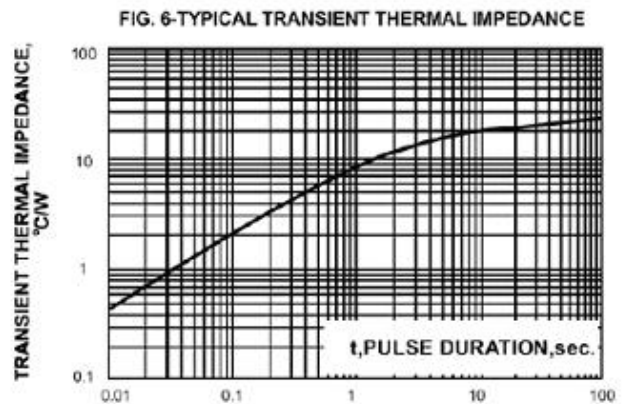
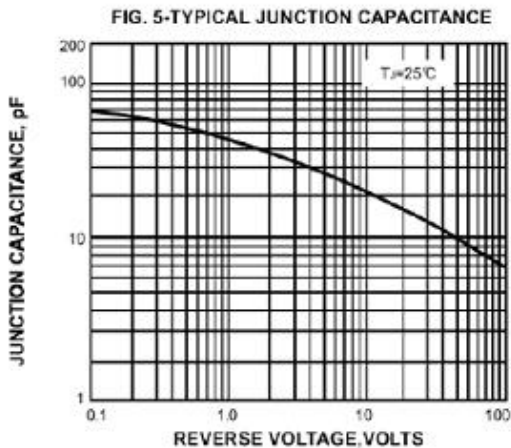
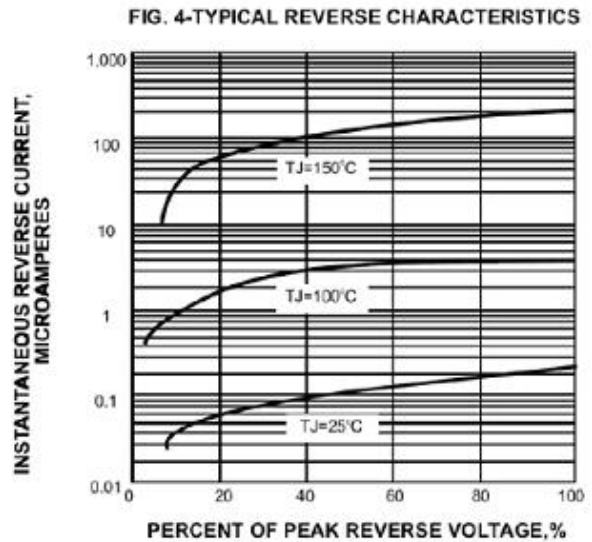
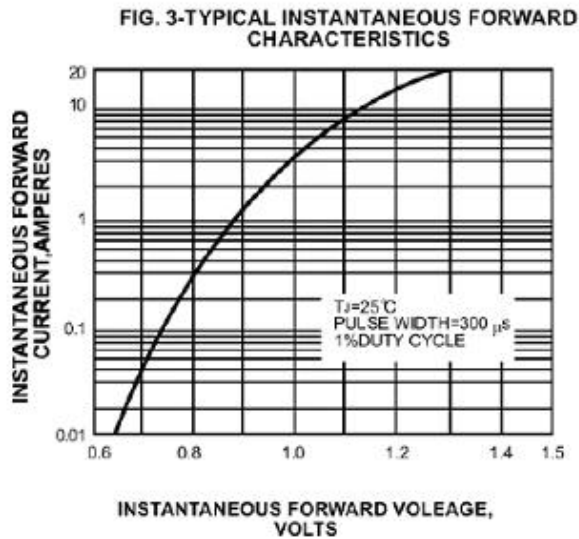
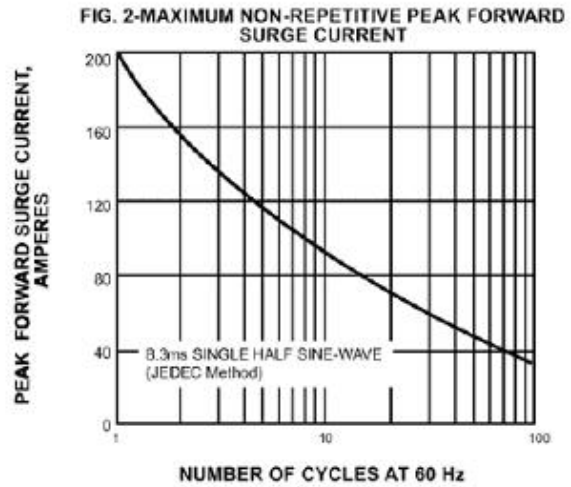
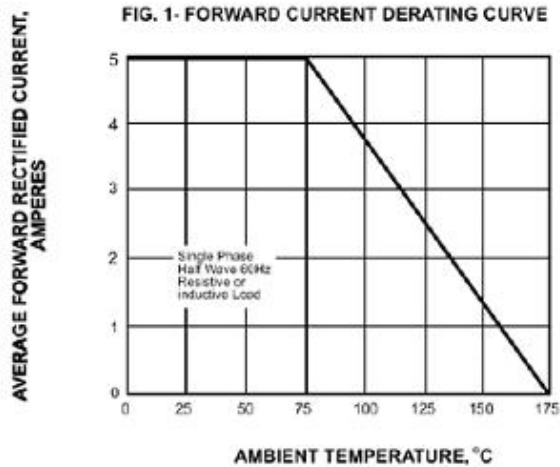
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

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 0.375"(9.5mm) Lead Length @T _A = 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 @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _R	9.0 170	uA
Typical Junction Capacitance (Note 1)	C _j	50	pF
Typical Thermal Resistance (Note 2)	R _{θJA}	20	°C/W
Operating Storage Temperature Range	T _{STG}	-65 to +175	°C
Operating Junction Temperature	T _J	-65 to +175	°C

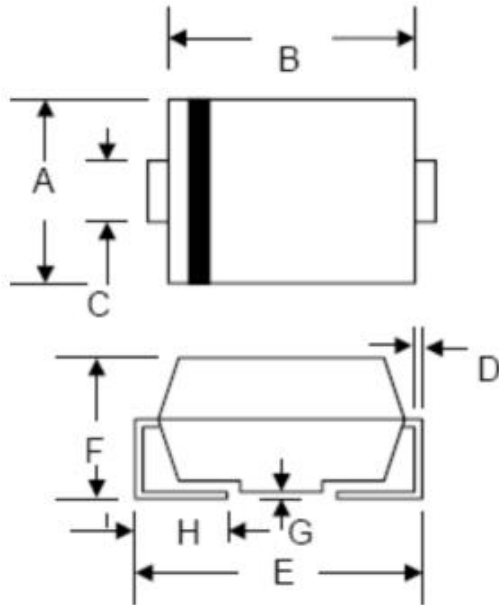
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted.

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

Ratings and Characteristics Curves



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

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

Marking Diagram

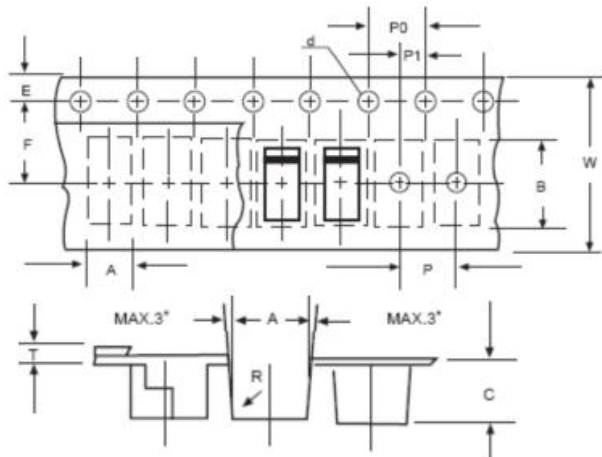


Where XXXXX is YYWWL

SD560B = 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

DISCLAIMER:

1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC - Sangdest Microelectronics (Nanjing) Co., Ltd sales department for the latest version of the datasheet(s).

2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.

3- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC - Sangdest Microelectronics (Nanjing) Co., Ltd assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.

4- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.

5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.

6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.

7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..