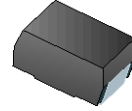


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- For Use in Low Voltage Application

SMB



MECHANICAL DATA

- Case: Molded Plastic
- Epoxy: UL 94V-0 Rate Flame Retardant
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13 inch

ORDER INFORMATION

Part Number	Type
SM520B-C~SM560B-C	Lead (Pb)-free and Halogen-free

Cathode  Anode 

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Part Number			Unit
		SM520B-C	SM540B-C	SM560B-C	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	V
Maximum RMS Voltage	V_{RWM}	14	28	42	V
Maximum DC Blocking Voltage	V_R	20	40	60	V
Average Rectified Output Current @ $T_L=100^\circ\text{C}$	$I_{F(AV)}$	5			A
Peak Forward Current @ 8.3ms Half Sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	110			A
Forward Voltage @ $I_F=5\text{A}$	V_F	0.53		0.67	V
Peak Reverse Current @ Rated DC Blocking Voltage	I_R	$T_A=25^\circ\text{C}$			mA
		$T_A=100^\circ\text{C}$			
Typical Junction Capacitance ¹	C_J	220			pF
Thermal Resistance Junction-Ambient ²	$R_{\theta JA}$	94.5			°C/W
Thermal Resistance Junction-Case ²	$R_{\theta JC}$	20.5			
Thermal Resistance Junction-Lead ²	$R_{\theta JL}$	14.5			
Operating and Storage Temperature Range	T_J, T_{STG}	-55~150			°C

Notes:

1. Measured at 1MHz and applied reverse voltage of 4V D.C.
2. Thermal Resistance from Junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 Forward Current Derating Curve

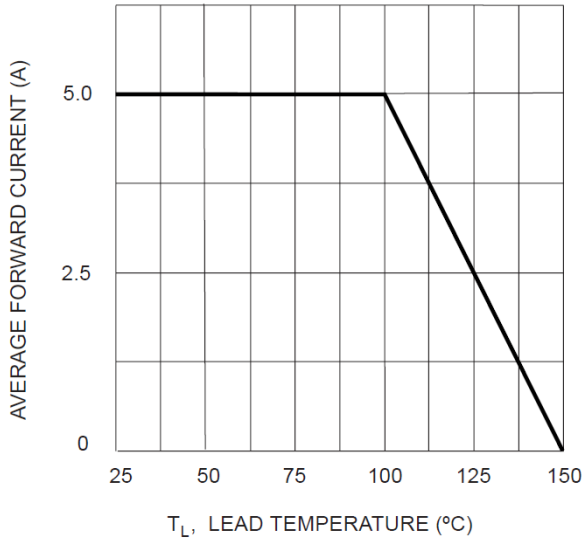


Fig. 2 Typ. Forward Characteristics

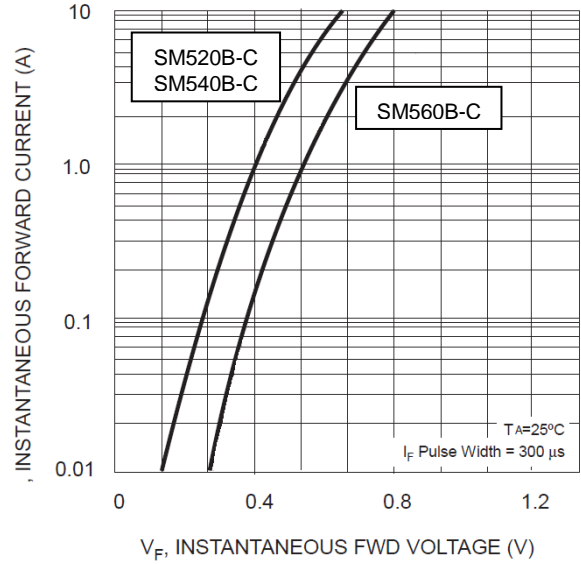


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

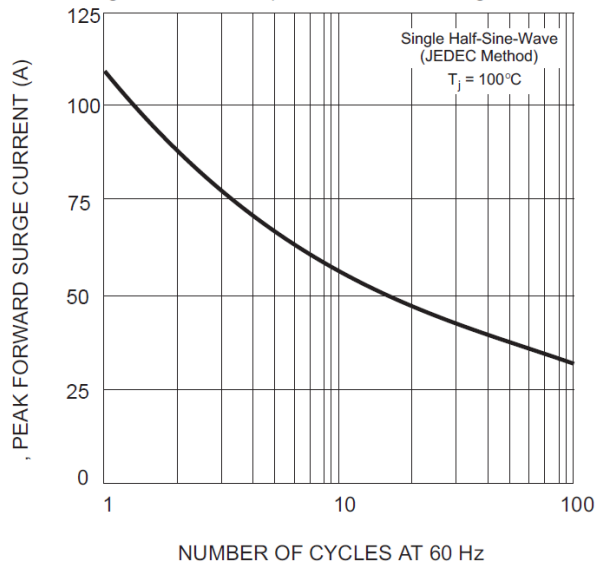
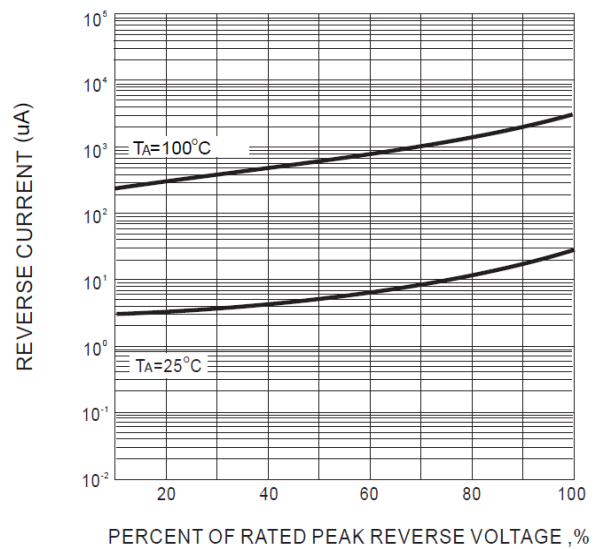
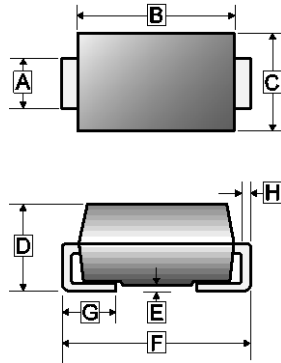


Fig.4 Typical Reverse Characteristic



PACKAGE OUTLINE DIMENSIONS

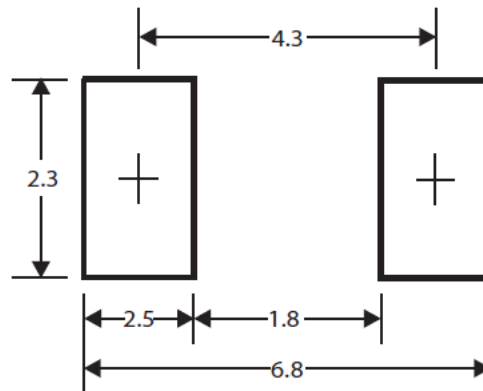
SMB



REF.	Millimeter	
	Min.	Max.
A	1.85	2.20
B	4.00	4.85
C	3.25	3.94
D	1.90	2.61
E	-	0.25
F	5.05	5.59
G	0.75	1.55
H	0.15	0.31

MOUNTING PAD LAYOUT

SMB



*Dimensions in millimeters