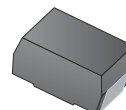


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Ideal for Surface Mount Applications
- Low Profile Package
- Glass Passivated Chip Junction
- Easy to Pick and Place
- Lead Free in Comply with EU RoHS 2011/65/EU Directives

SMB

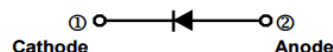


MECHANICAL DATA

- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13 inch



ORDER INFORMATION

Part Number	Type
SEF501BR-C~SEF507BR-C	Lead (Pb)-free and Halogen-free

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
		SEF501 BR-C	SEF502 BR-C	SEF503 BR-C	SEF504 BR-C	SEF505 BR-C	SEF506 BR-C	SEF507 BR-C	
Marking		US5A	US5B	US5D	US5G	US5J	US5K	US5M	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I_F	5							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100							A
Maximum Instantaneous Forward Voltage @5A	V_F	1		1.3		1.68			V
Maximum DC Reverse Current @Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	5							μA
	$T_A=125^\circ\text{C}$	100							
Maximum Reverse Recovery Time ¹	T_{RR}	50				75			nS
Thermal Resistance, Junction-Ambient ²	$R_{\theta JA}$	45							$^\circ\text{C/W}$
Thermal Resistance, Junction-Case ²	$R_{\theta JC}$	15							
Operating & Storage Temperature	T_J, T_{STG}	-50~150							$^\circ\text{C}$

Notes:

1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$.
2. P.C.B. mounted with 2.0" x 2.0" (5 x 5 cm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Maximum Average Forward Current Rating

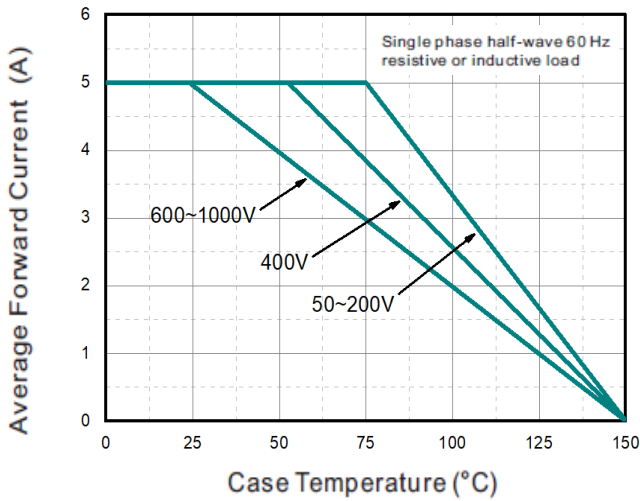


Fig.2 Typical Reverse Characteristics

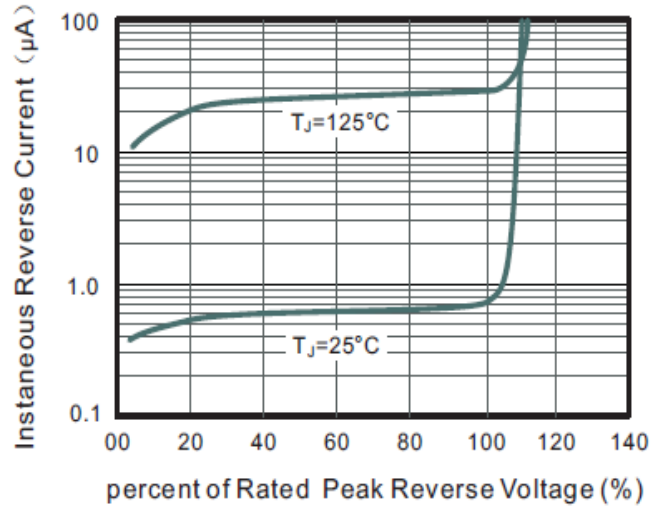


Fig.3 Typical Forward Characteristics

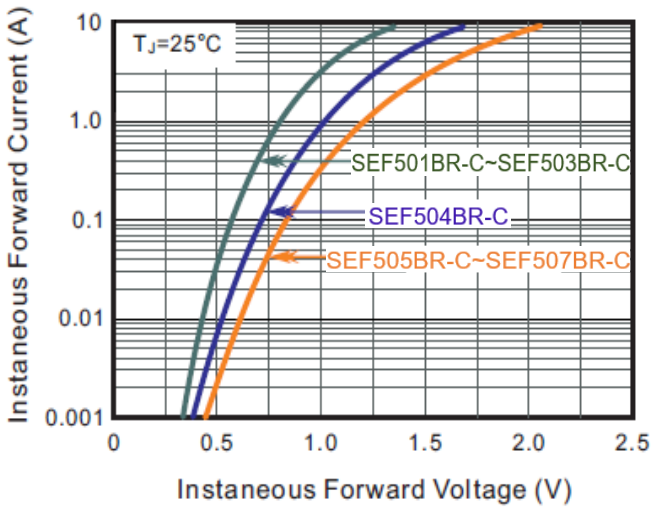
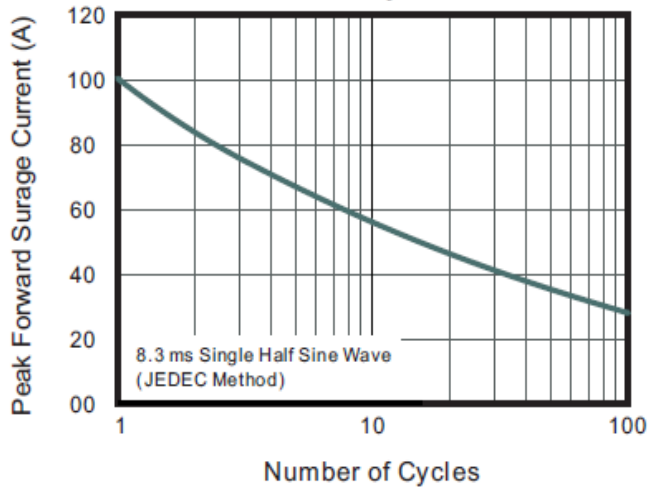
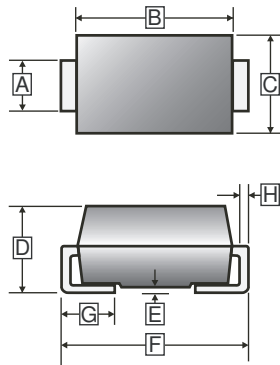


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE DIMENSIONS

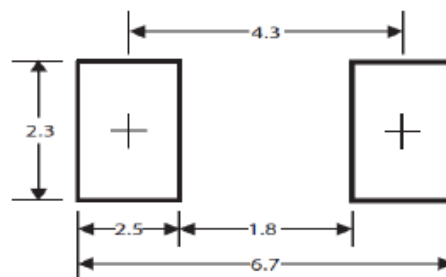
SMB



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