

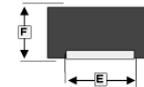
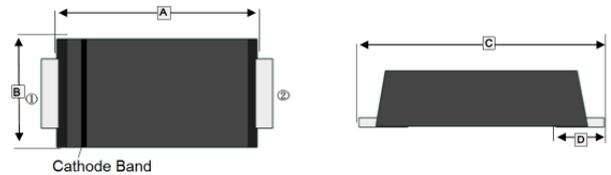
RoHS Compliant Product

A suffix of "-C" specifies halogen-free and RoHS Compliant

## FEATURES

- For surface mounted applications
- Glass passivated chip junction
- Easily to be picked and place
- Fast reverse recovery time

### SMBM



## PACKAGE INFORMATION

Package	MPQ	Leader Size
SMBM	5K	13 inch

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.2	4.4	D	1.0 REF	
B	3.5	3.7	E	1.9	2.2
C	5.1	5.5	F	1.1	1.3

## 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, derate current by 20%.)

Parameter	Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum RMS Voltage	$V_{RMS}$	700	V
Maximum DC Blocking Voltage	$V_{DC}$	1000	V
Maximum Average Forward Rectified Current@ $T_C=125^\circ\text{C}$	$I_F$	2	A
Peak Forward Surge Current@ 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50	A
Maximum Instantaneous Forward Voltage@ 2A	$V_F$	1.3	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A=25^\circ\text{C}$	5
		$T_A=125^\circ\text{C}$	100
Typical Junction Capacitance@ $V_R=4\text{V}$ , $f=1\text{MHz}$	$C_J$	28	pF
Maximum Reverse Recovery Time <sup>1</sup>	$T_{RR}$	500	ns
Typical Thermal Resistance from Junction to Ambient <sup>2</sup>	$R_{\theta JA}$	60	$^\circ\text{C/W}$
Typical Thermal Resistance from Junction to Case <sup>2</sup>	$R_{\theta JC}$	18	$^\circ\text{C/W}$
Operating Junction and Storage Temperature	$T_J, T_{STG}$	-55~150	$^\circ\text{C}$

Notes:

1. The data is measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{RR}=0.25\text{A}$ .
2. The device is mounted on a PCB with 2" x 2" (5 x 5 cm) copper pad areas.

**CHARACTERISTIC CURVES**

Fig.1 Forward Current Derating Curve

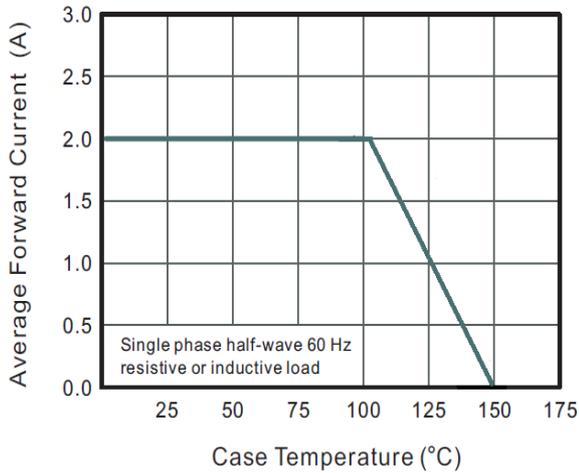


Fig.2 Typical Reverse Characteristics

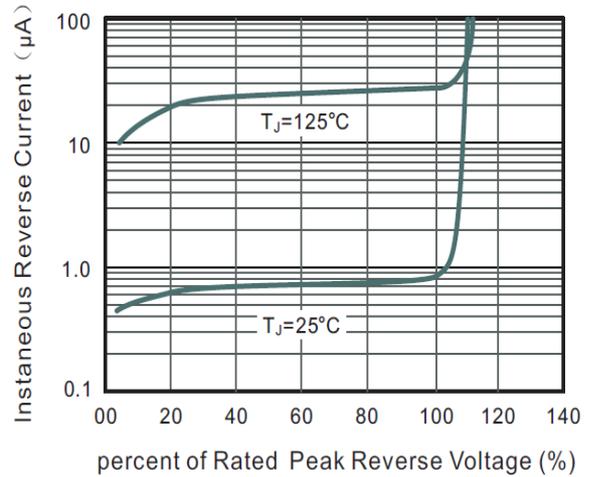


Fig.3 Typical Instantaneous Forward Characteristics

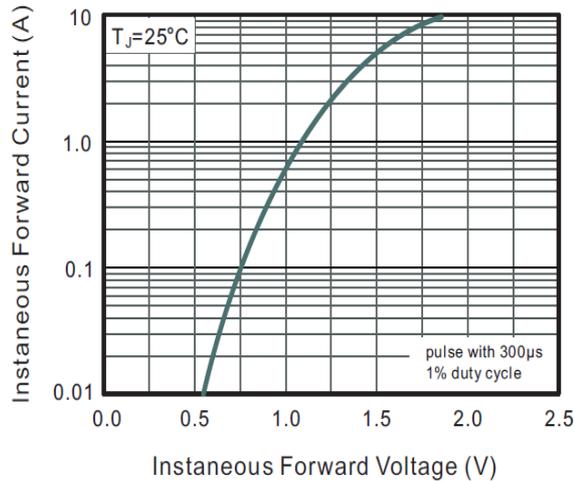


Fig.4 Typical Junction Capacitance

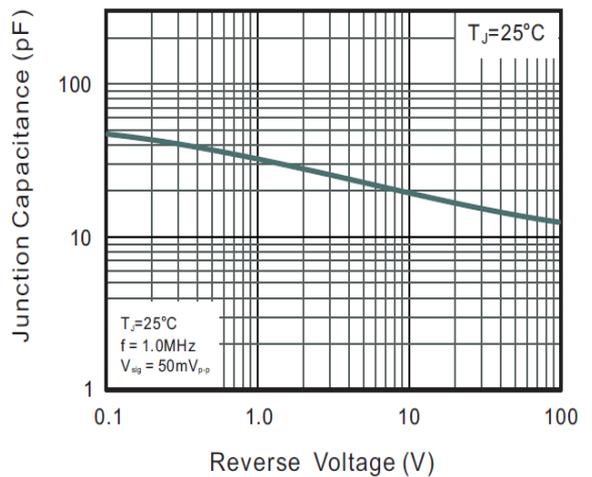


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

