

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

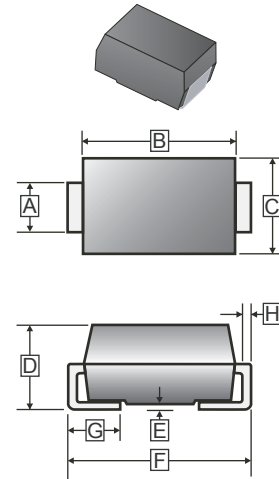
## FEATURES

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering : 250°C for 10 Seconds at Terminals
- Low Reverse Current

## MECHANICAL DATA

- Case: Molded Plastic
- Epoxy: UL 94V-0 Rate Flame Retardant
- Lead: Axial Leads, Solderable per MIL-STD-202 method 208 Guaranteed
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

### SMB



## PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13' inch

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.91	2.20	E	-	0.203
B	4.06	4.70	F	5.08	5.59
C	3.30	3.94	G	0.76	1.52
D	2.13	2.44	H	0.15	0.305

## 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%.)

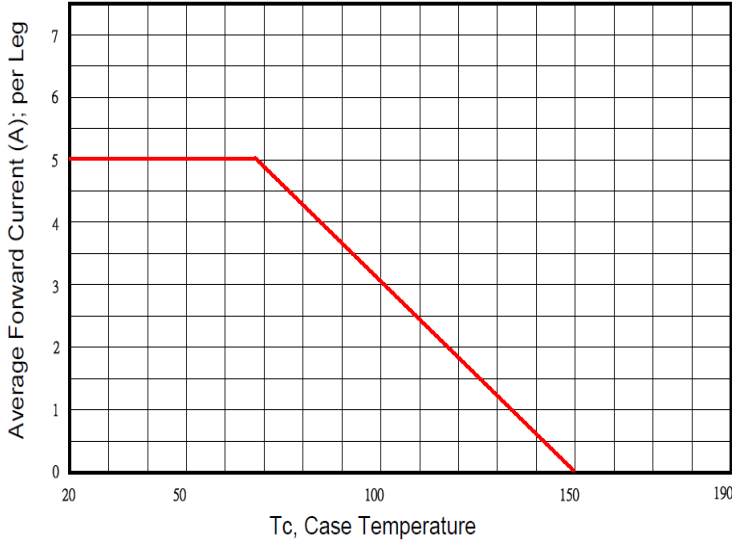
Parameter	Symbol	Ratings	Unit
Peak Repetitive Peak reverse voltage	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RWM}$	100	V
Maximum DC Blocking Voltage	$V_R$	100	V
Average Forward Current @ $T_J=25^\circ\text{C}$	$I_{F(AV)}$	5	A
Peak Forward Current @ 8.3 ms Half Sine	$I_{FSM}$	125	A
Maximum Instantaneous Forward Voltage	$V_F$	$I_{FM} = 5.0 \text{ A}, T_A = 25^\circ\text{C}$	0.82
		$I_{FM} = 5.0 \text{ A}, T_A = 75^\circ\text{C}$	0.73
		$I_{FM} = 5.0 \text{ A}, T_A = 125^\circ\text{C}$	0.65
Maximum DC Reverse Current At Rated DC Blocking Voltage <sup>4</sup>	$I_R$	$T_J = 25^\circ\text{C}$	100
		$T_J = 100^\circ\text{C}$	800
Typical Junction Capacitance <sup>1</sup>	$C_J$	350	pF
Typical Thermal Resistance <sup>2</sup>	$R_{\theta JA}$	60	°C/W
Typical Thermal Resistance <sup>3</sup>	$R_{\theta JC}$	20	°C/W
Device Power Dissipation	$P_D$	2	W
Voltage Rate of Change (Rated $V_R$ )	dv/dt	10000	V / $\mu\text{s}$
Operating Temperature Range	$T_J$	-50~150	°C
Storage temperature	$T_{STG}$	-65~150	°C

Notes:

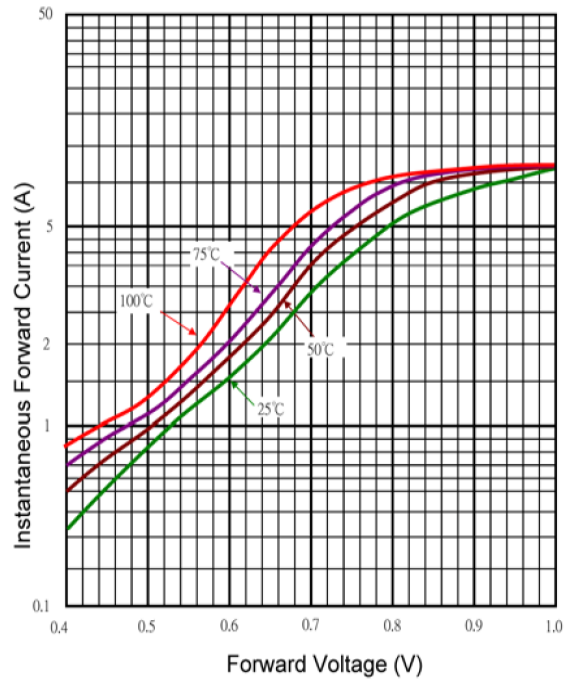
1. Measured at 1MHz and applied reverse voltage of 5.0 V D.C.
2. Thermal Resistance Junction to Ambient.
3. Thermal Resistance Junction to Case.
4. Pulse Test : Pulse Width  $\leq 300 \mu\text{s}$ , Duty Cycle  $\leq 2.0\%$ .

**RATINGS AND CHARACTERISTIC CURVES**

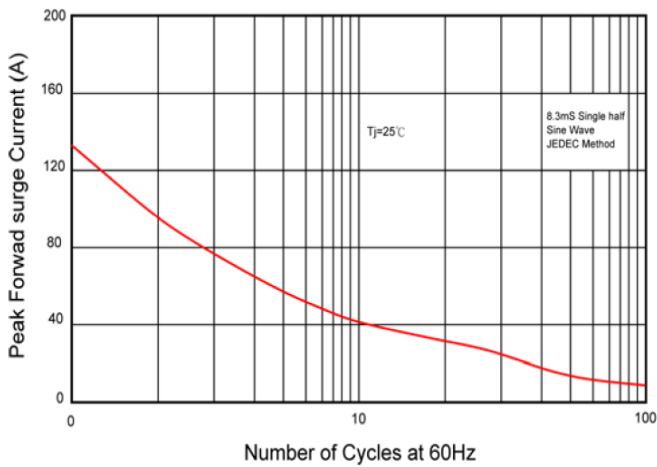
Typical Forward Current Derating Curve



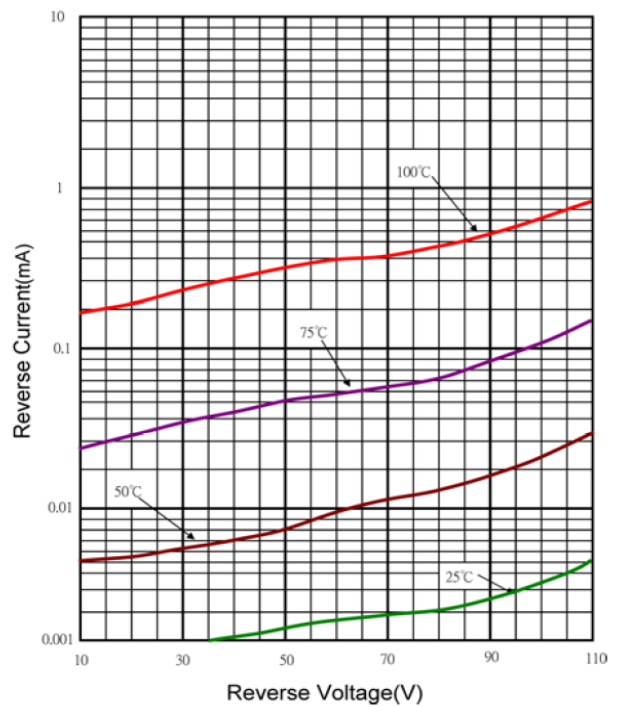
Typical Forward Characteristic



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

