

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

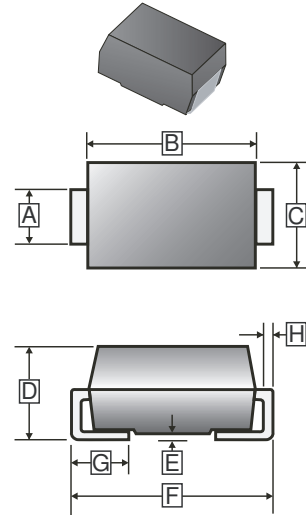
### FEATURES

- RoHS Compliant Product
- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- High surge current capability

### MECHANICAL DATA

- Case: DO-214AA (SMB)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead Free Plating (Tin Finish) Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.093 grams (approximately)

#### 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	Part Number							Unit
		SM 4001B	SM 4002B	SM 4003B	SM 4004B	SM 4005B	SM 4006B	SM 4007B	
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 @ $T_A=110^\circ\text{C}$	$I_F$	1							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage @ 1.0A	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_J=25^\circ\text{C}$	5							$\mu\text{A}$
	$T_J=125^\circ\text{C}$	100							
Typical Junction Capacitance <sup>1</sup>	$C_J$	12							pF
Typical Thermal Resistance <sup>2</sup>	$R_{\theta JA}$	75					85		$^\circ\text{C/W}$
Operating & Storage Temperature	$T_J, T_{STG}$	-55~150							$^\circ\text{C}$

Note:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC
2. Thermal Resistance from Junction to Ambient.

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 - FORWARD CURRENT DERATING CURVE

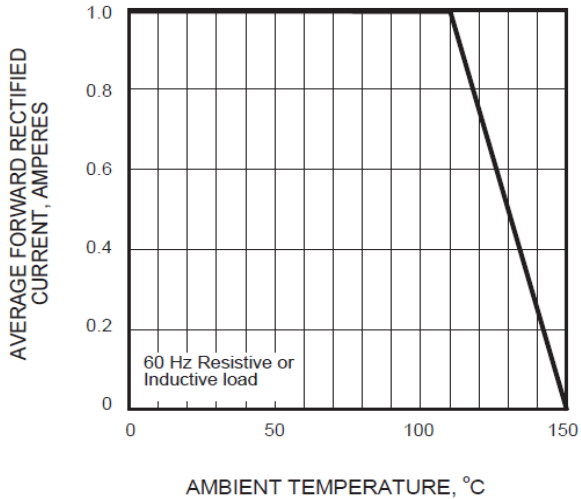


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

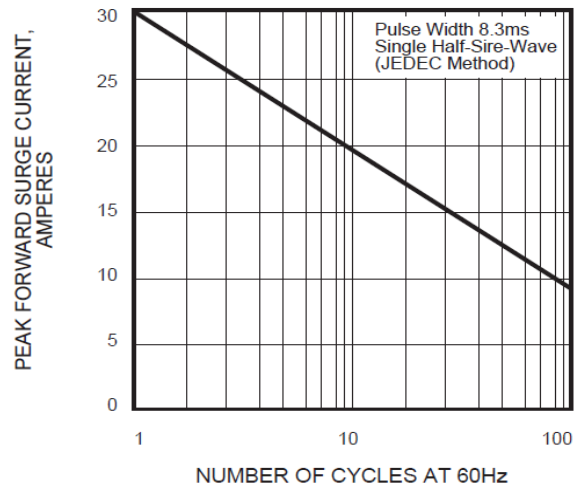


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

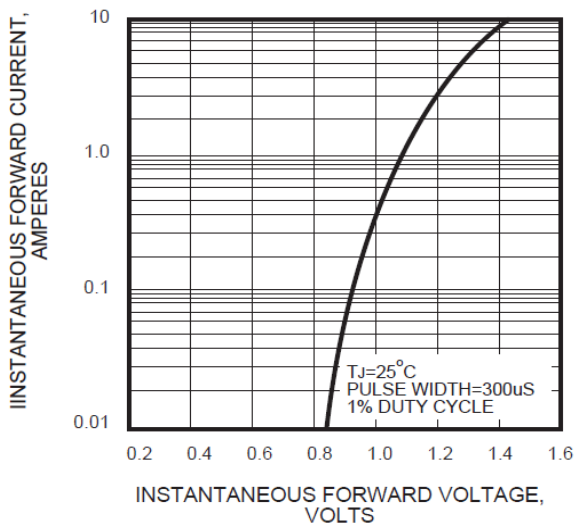


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

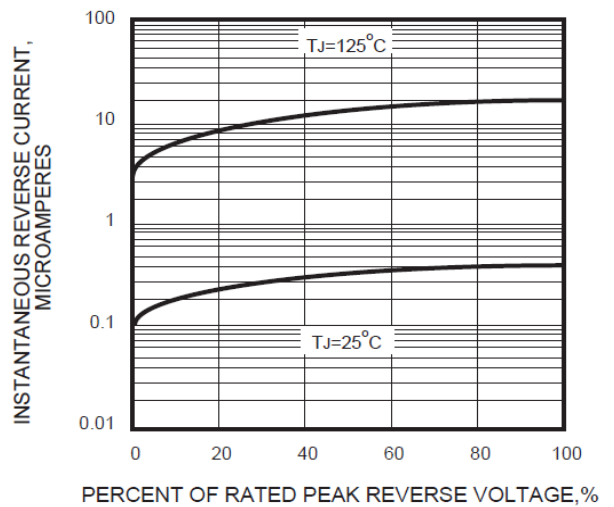


FIG.5 - TYPICAL JUNCTION CAPACITANCE

