

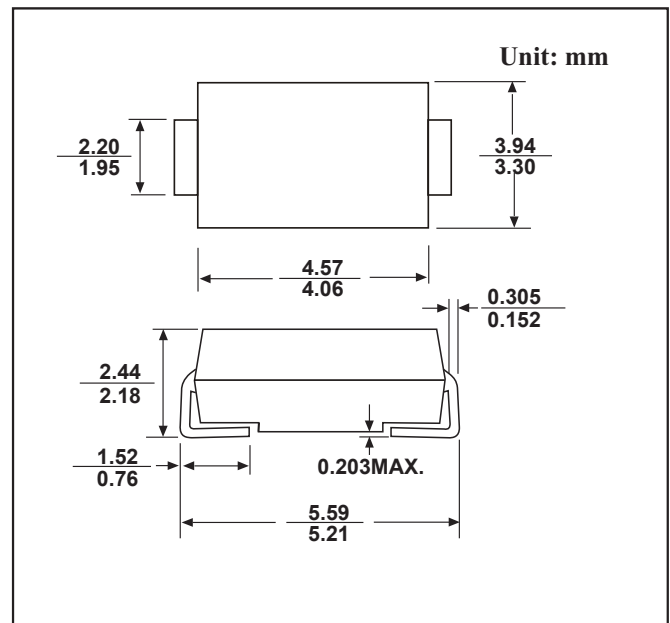
## SMB PLASTIC SILICON RECTIFIERS

### FEATURES

- Lead free finish/Rohs compliant (Note 1)  
("P" suffix designates compliant. See ordering information)
- Low forward voltage drop and high current capability
- Glass passivated die construction
- Surge over load rating to 100A peak
- Ideally suited for automatic assembly
- Epoxy meets UL 94V-0 flammability rating
- Moisture sensitivity level 1

### MECHANICAL DATA

- Case:SMB molded plastic body
- Terminals: Solder Plated Terminal-Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band



## MAXIMUM RATINGS AND CHARACTERISTICS

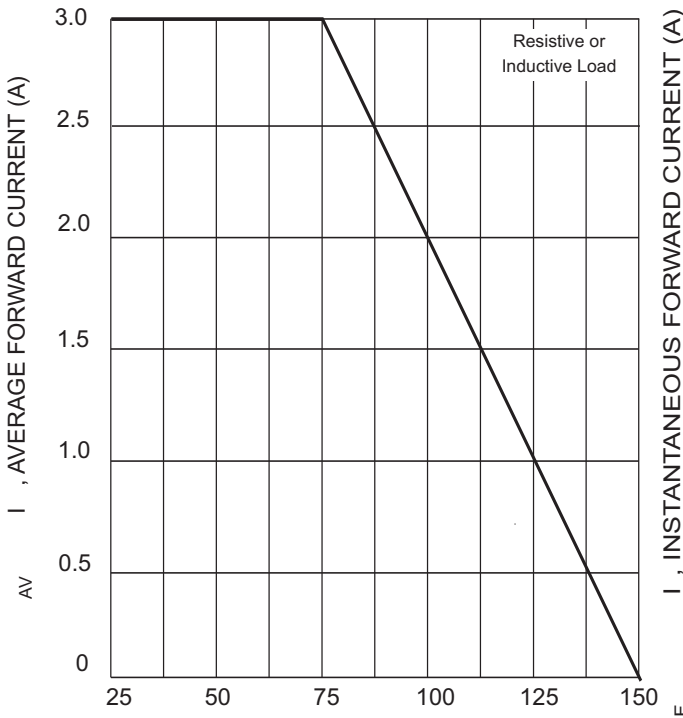
@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	SYMBOLS	S3A	S3B	S3D	S3G	S3J	S3K	S3M	UNIT	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts	
Average Forward Current $T_J=75^\circ\text{C}$	$I_O$	3.0							Amps	
Peak Forward Surge Current 8.3ms, half sine	$I_{FSM}$	100							Amps	
Maximum Instantaneous Forward Voltage $I_{FM}=3.0\text{A } T_J=25^\circ\text{C}$	$V_F$	1.15							Volts	
Maximum DC Reverse Current at rated DC blocking voltage	$T_J=25^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
	$T_J=125^\circ\text{C}$		250							$\mu\text{A}$
Typical Junction Capacitance Measured at 1.0MHz, $V_R=4.0\text{V}$	$C_J$	40							pF	

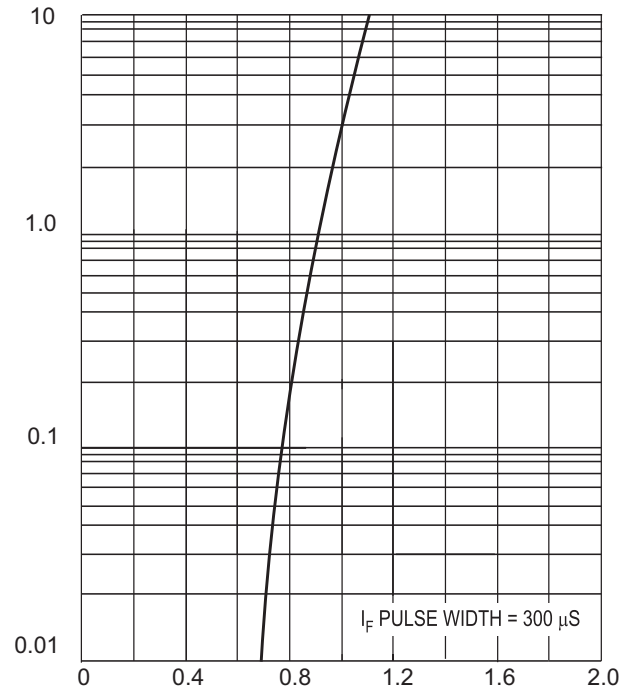
### NOTES:

1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

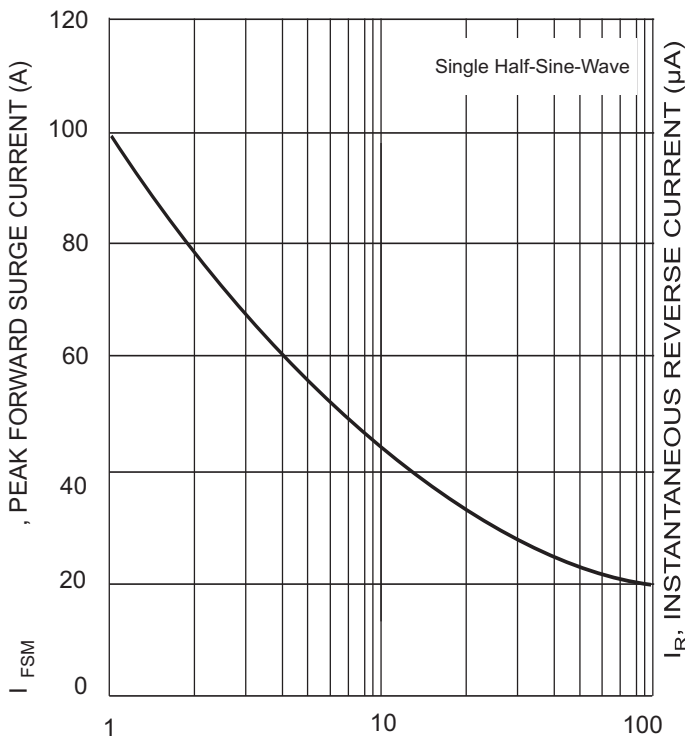
RATINGS AND CHARACTERISTIC CURVES



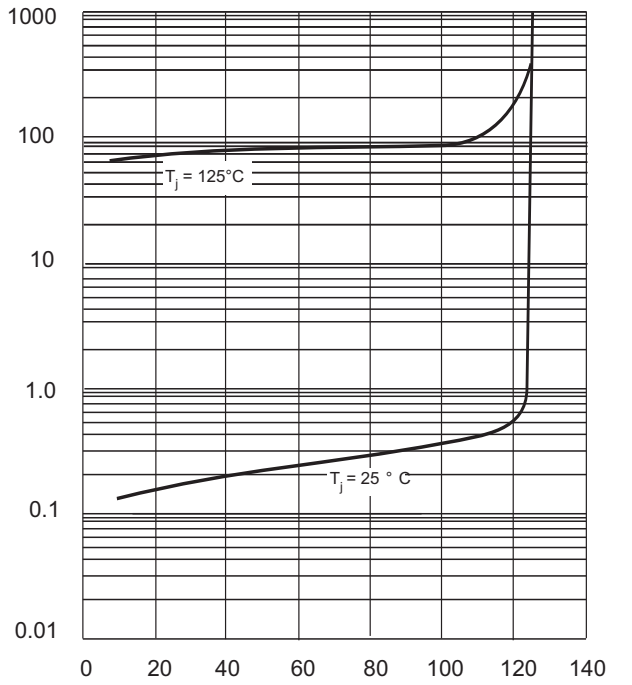
$T_T$ , TERMINAL TEMPERATURE (°C)  
Fig. 1 Forward Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz  
Fig. 3 Forward Surge Current Derating Curve



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)  
Fig. 4 Typical Reverse Characteristics