

Glass/Silicon Passivated Rectifiers  
 Type PR - SM3AB Thru SM3MB  
 Reverse Voltage - 50 to 1000 Volts  
 Forward Current - 3.0 Amperes

**△ Features**

- Glass/Silicon Passivated Chip
- For surface mounted applications
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL flammability classification 94V-0

**△ Mechanical Data**

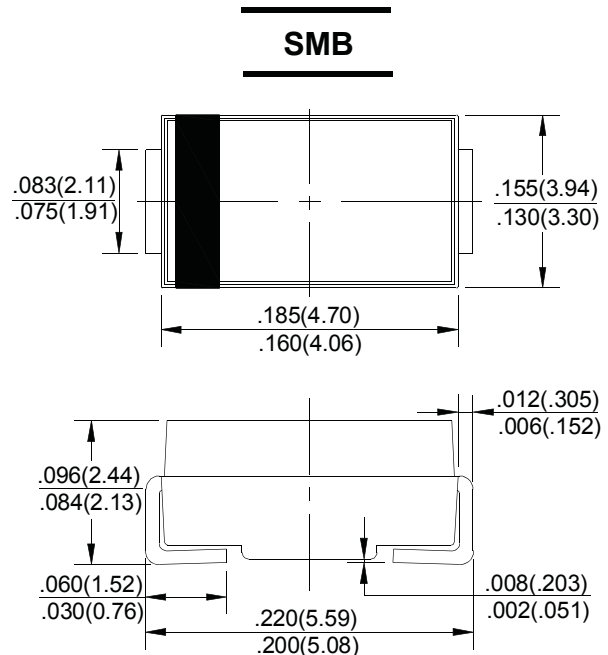
- Case: Molded plastic
- Polarity: Indicated by cathode band
- Weight: 0.002 ounces , 0.064 grams
- Mounting position: Any

**△ Maximum Ratings and Electrical Characteristics**

Ratings ar 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%



Dimensions in inches and (millimeters)

CHARACTERISTICS	SYMBOL	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>L</sub> =75°C	I <sub>(AV)</sub>	3.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	I <sub>FSM</sub>	200							A
Maximum Forward Voltage at 3.0A DC	V <sub>F</sub>	1.2							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C	I <sub>R</sub>	5.0 250							uA
Typical Junction Capacitance (Note1)	C <sub>J</sub>	40							pF
Typical Thermal Resistance (Note2)	R <sub>θJL</sub>	10							°C /W
Typical Thermal Resistance (Note3)	R <sub>θJA</sub>	50							°C /W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

NOTES:1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2.Thermal resistance junction to lead.

3.Thermal resistance junction to ambient.

Surface Mount Diodes



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Δ Rating and Characteristics Curves

FIG. 1 - FORWARD CURRENT DERATING CURVE

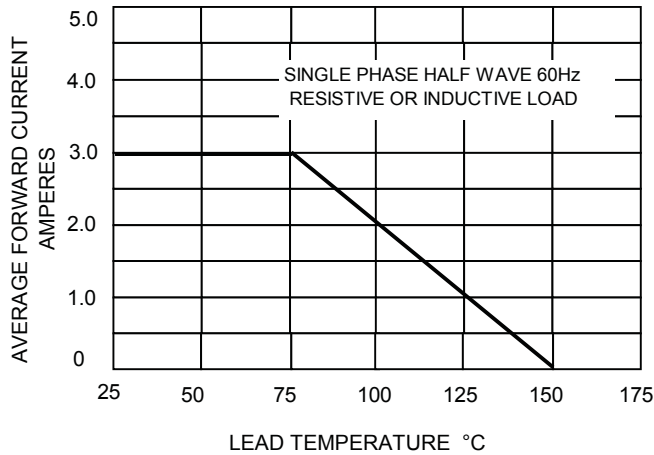


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

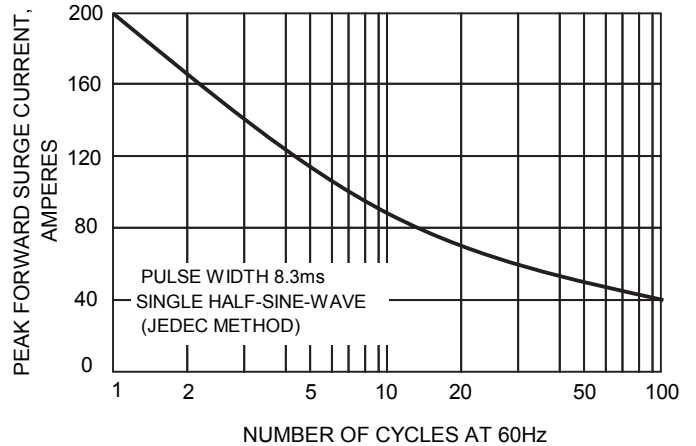


FIG.3-TYPICAL FORWARD CHARACTERISTICS

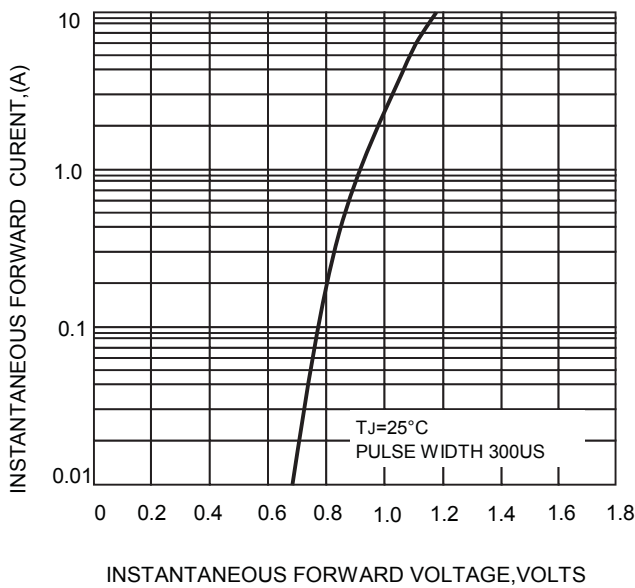


FIG.4-TYPICAL REVERSE CHARACTERISTICS

