

Glass/Silicon Passivated Rectifiers
 Type PR - S3A Thru S3M
 Reverse Voltage - 50 to 1000 Volts
 Forward Current - 3.0 Amperes

Δ 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

Δ Mechanical Data

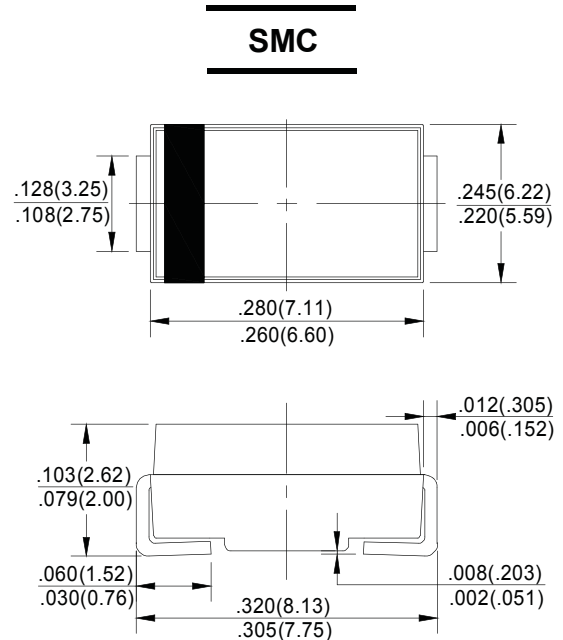
- Case: Molded plastic
- Polarity: Indicated by cathode band
- Weight: 0.002 ounces , 0.064 grams
- Mounting position: Any

Δ 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)

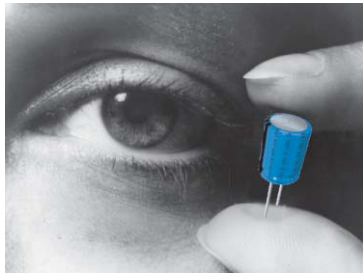
CHARACTERISTICS	SYMBOL	S3A	S3B	S3D	S3G	S3J	S3K	S3M	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T _L =75°C	I _(AV)	3.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	I _{FSM}	200							A
Maximum Forward Voltage at 3.0A DC	V _F	1.2							V
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	I _R	5.0 250							uA
Typical Junction Capacitance (Note1)	C _J	40							pF
Typical Thermal Resistance (Note2)	R _{θJL}	10							°C/W
Typical Thermal Resistance (Note3)	R _{θJA}	50							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-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

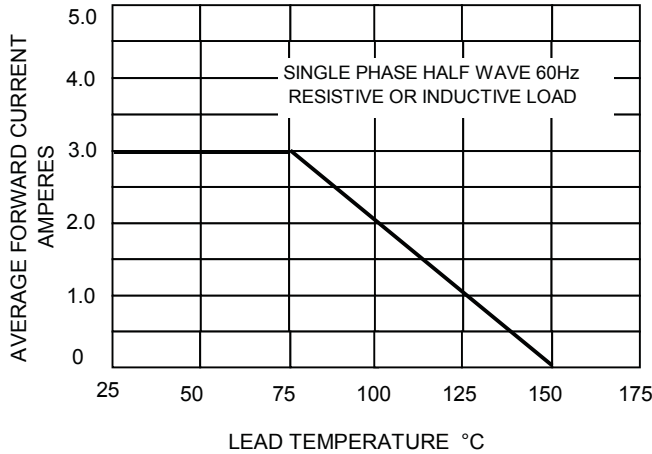


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

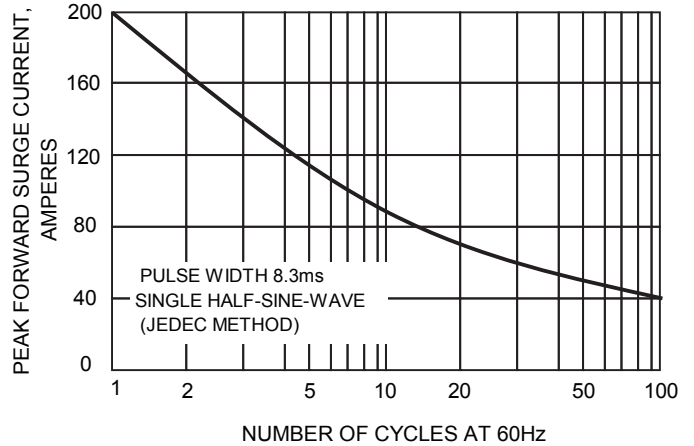


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

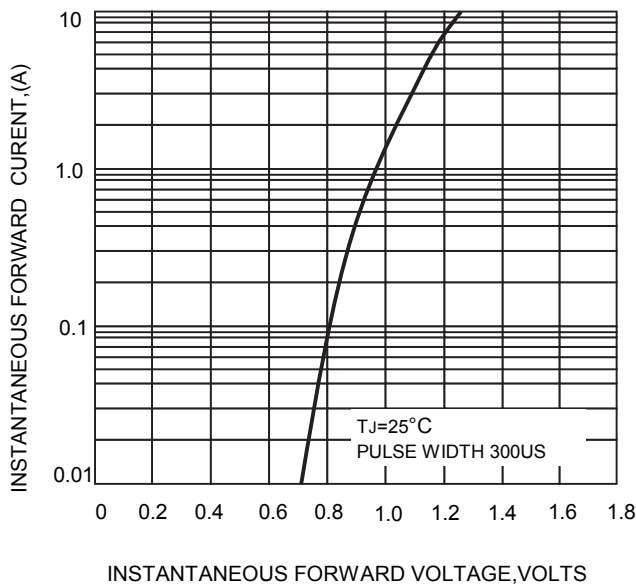


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

