

**3.0 A Surface Mount Silicon Rectifier**  
Rectifier Reverse Voltage 50 to 1000V

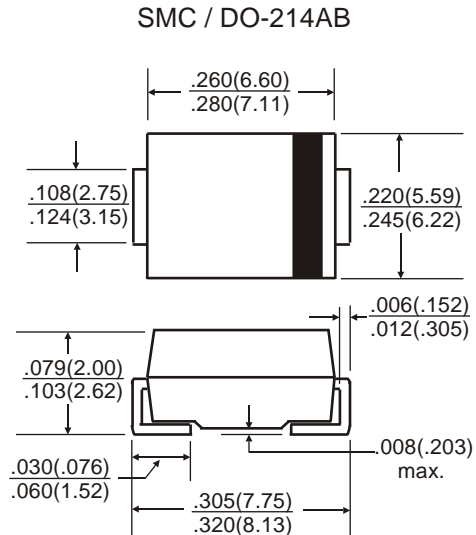


**Features**

- Ideal for surface mount application
- Surge overload rating to 100A peak
- Plastic material has UL recognition flammability classification 94V-0
- Built-in strain relief

**Mechanical Data**

Case: Molded plastic  
 Terminals: Solder plated solderable per MIL-STD-202F, Method 208  
 Polarity: Color band denotes cathode end  
 Mounting Position: Any  
 Weight: 0.21 grams (approx)



All dimensions inches and (millimeters)

**Maximum Ratings & Thermal Characteristics**

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
 For Capacitive load derate current by 20%.

Parameter	Symbol	S3A	S3B	S3D	S3G	S3J	S3K	S3M	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at TA=40°C	IF(AV)	3.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	100							A
Typical thermal resistance per element (1)	ReJA	13							°C/W
Typical junction capacitance per element (2)	Cj	60							pF
Operating junction and storage temperature range	TJ, TSTG	-55 to + 150							°C

**Electrical Characteristics**

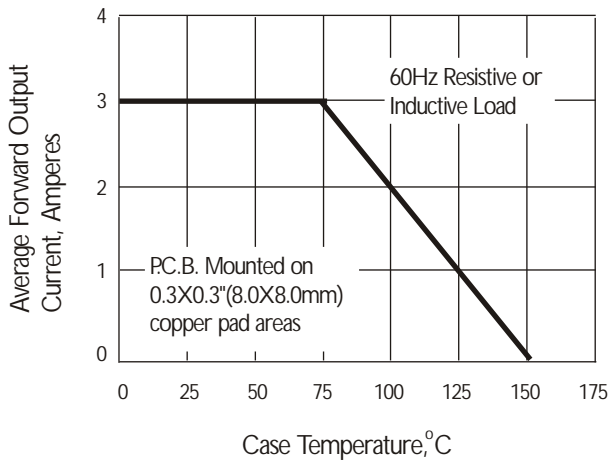
Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
 For Capacitive load derate by 20 %.

Parameter	Symbol	S3A	S3B	S3D	S3G	S3J	S3K	S3M	Unit
Maximum instantaneous forward voltage drop per leg at 3.0A	VF	1.15							V
Maximum DC reverse current at rated DC blocking voltage per element	IR	5.0 250							μA

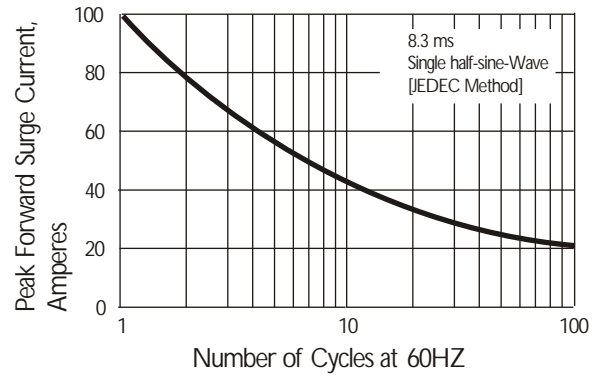
**Notes:** (1) Thermal resistance from Junction to Ambient on P.C. board mounting.  
 (2) Measured at 2.0MHz and applied reverse voltage of 4.0 volts.

# Rating and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ Unless otherwise noted ) S3A thru S3M

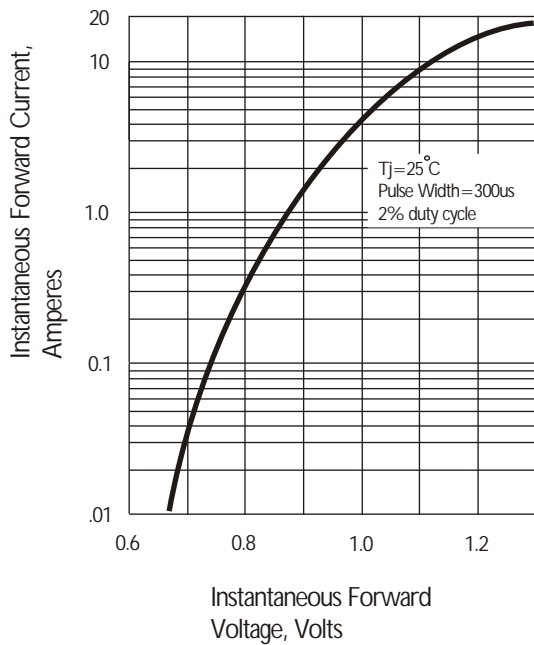
**Fig. 1 Derating Curve for Output Rectified Current**



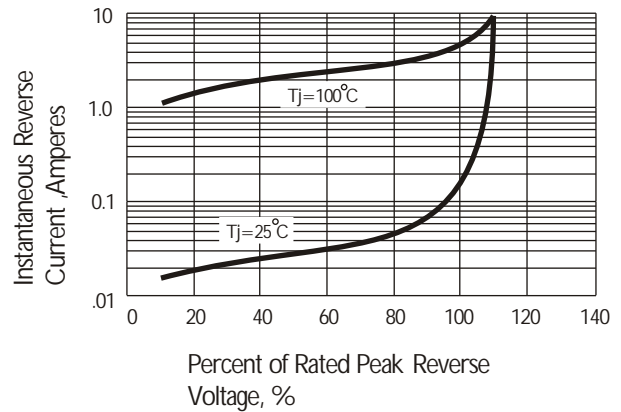
**Fig. 2 Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics**



**Fig. 5 Typical Junction Capacitance**

