

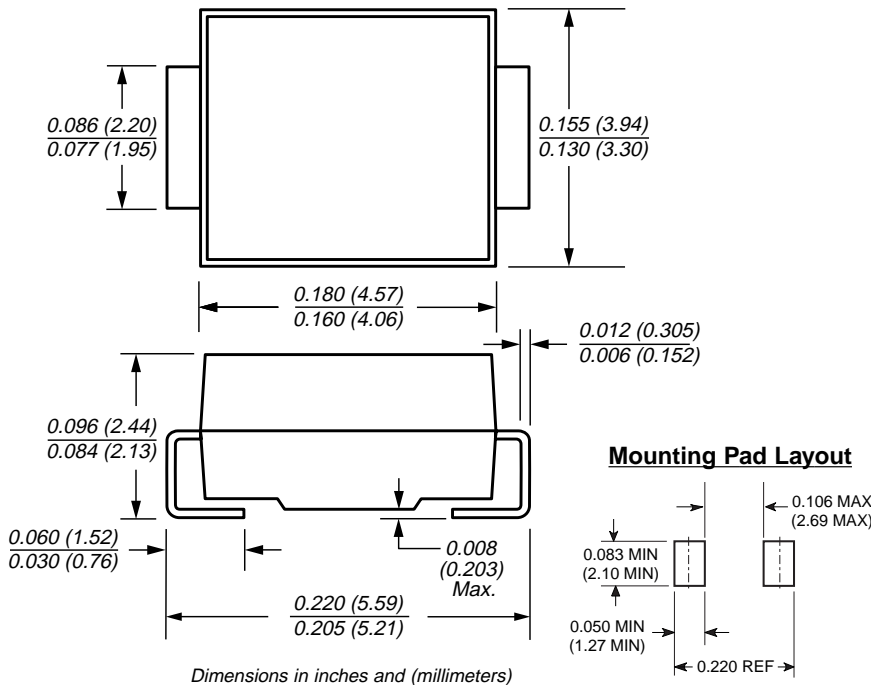
## Surface Mount Glass Passivated Rectifier

Reverse Voltage 50 to 1000 V

Forward Current 1.5 A



DO-214AA (SMB)



### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief, ideal for automated placement
- Glass passivated chip junction
- High temperature soldering: 250°C/10 seconds at terminals

### Mechanical Data

**Case:** JEDEC DO-214AA molded plastic body over glass passivated chip

**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Weight:** 0.003 ounce, 0.093 gram

### Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNITS
Device marking code		SA	SB	SD	SG	SJ	SK	SM	
Maximum repetitive 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 at T <sub>L</sub> =100°C	I <sub>F(AV)</sub>	1.5							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T <sub>L</sub> =100°C	I <sub>FSM</sub>	50							A
Typical thermal resistance (NOTE 1)	R <sub>θJA</sub> R <sub>θJL</sub>	53 16							°C/W
Operating and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

### Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

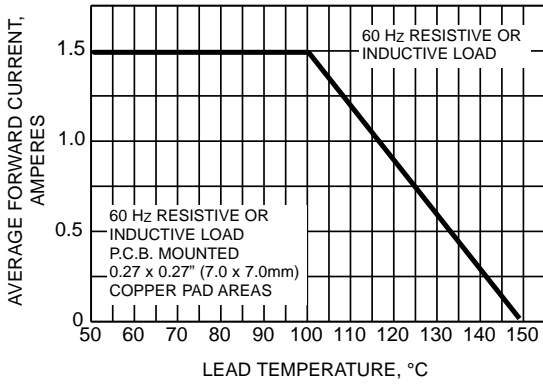
	SYMBOLS	S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNITS
Maximum instantaneous forward voltage at 1.5 A	V <sub>F</sub>	1.15							V
Maximum DC reverse current at Rated DC blocking voltage T <sub>A</sub> =25°C T <sub>A</sub> =125°C	I <sub>R</sub>	1.0 125							μA
Typical reverse recovery time at I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A	t <sub>rr</sub>	2.0							μs
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	30							pF

**Notes:**

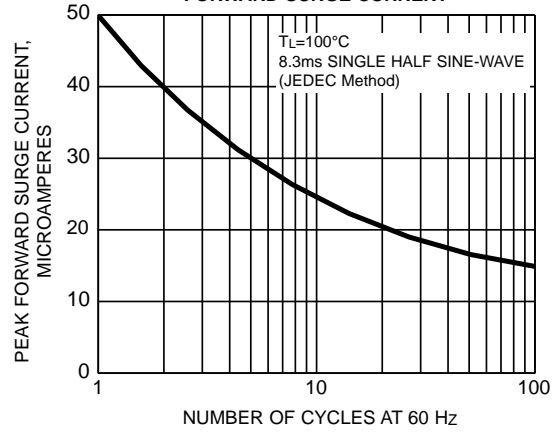
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3 x 0.3" (8.0 x 8.0mm) copper pad areas

**Ratings and Characteristic Curves** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

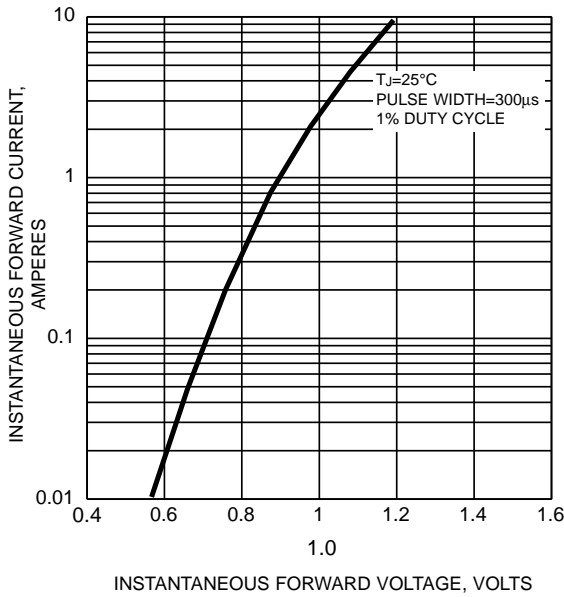
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



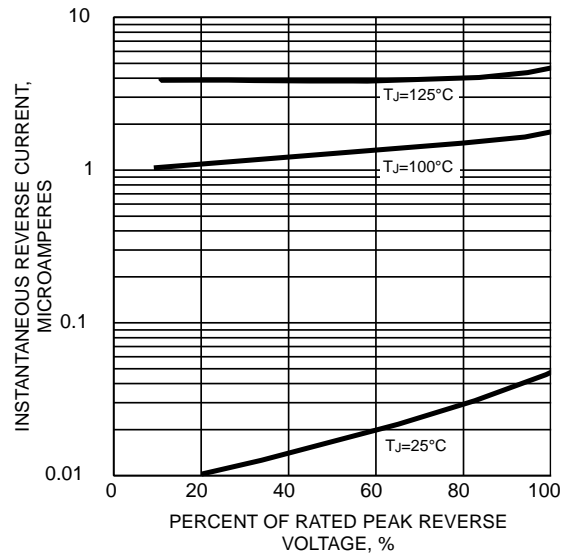
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

