

**VOLTAGE RANGE** 50 to 1000 Volts  
**CURRENT** 3.0 Ampere

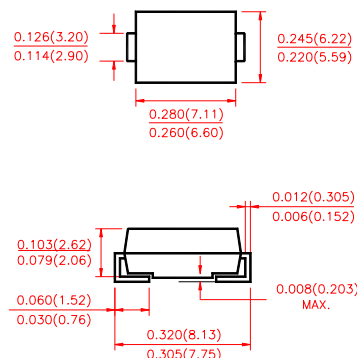
## FEATURES

- Plastic package has underwrites 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 second at terminals

## MECHANICAL DATA

- Case: JEDED DO-214AA molded plastic over glass passivated chip
- Terminals: Solder plated, Solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.007ounce, 0.25 gram

DO-214AB(SMC)



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

		SYMBOLS	S3A	S3B	S3D	S3G	S3J	S3K	S3M	UNIT
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>L</sub> =100°C (NOTE 3)		I <sub>(AV)</sub>	3.0							Amps
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>	100							Amps
Maximum Instantaneous Forward Voltage at 3.0A		V <sub>F</sub>	1.15							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	T <sub>A</sub> = 25°C	I <sub>R</sub>	10.0							μA
	T <sub>A</sub> = 125°C		250							
Typical Reverse Recovery Time (NOTE 1)		T <sub>rr</sub>	2.5							μs
Typical junction capacitance (NOTE 2)		C <sub>J</sub>	60							pF
Typical Thermal Resistance (NOTE 3)		R <sub>θJL</sub>	47							°C/W
		R <sub>θJA</sub>	13							
Operating and Storage Temperature Range		T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

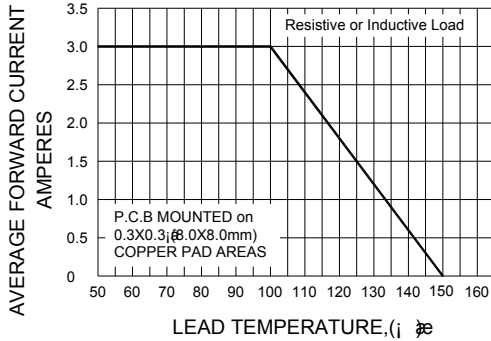
### Notes:

- Reverse recovery test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$
- Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
- Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B.with 0.3×0.3" (8.0 × 8.0mm) copper pad areas.

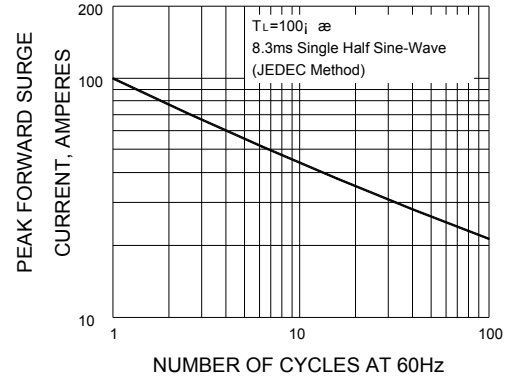
SYMBOLS	S3A	S3B	S3D	S3G	S3J	S3K	S3M
MARKING	S3A	S3B	S3D	S3G	S3J	S3K	S3M

## RATINGS AND CHARACTERISTIC CURVES S3A THRU S3M

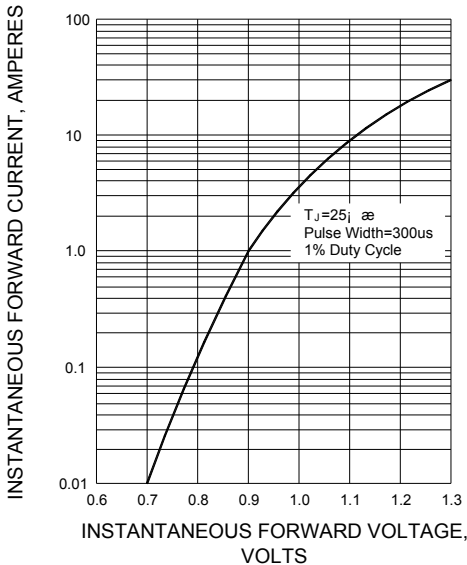
F1G.1-FORWARD CURRENT DERATING CURVE



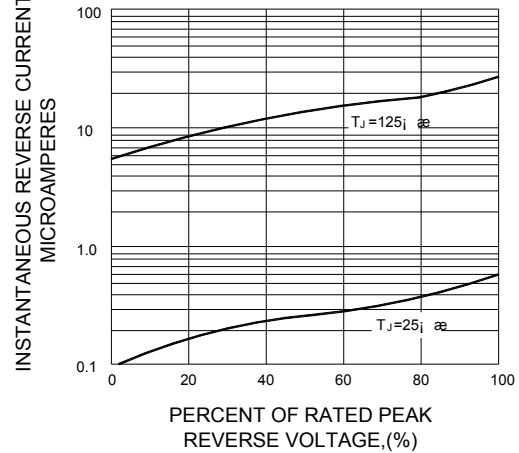
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



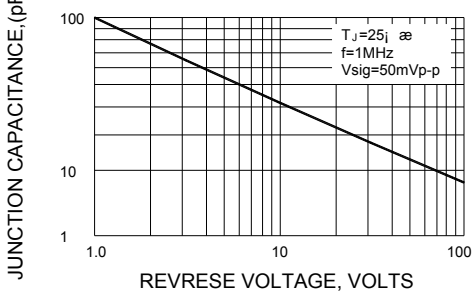
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



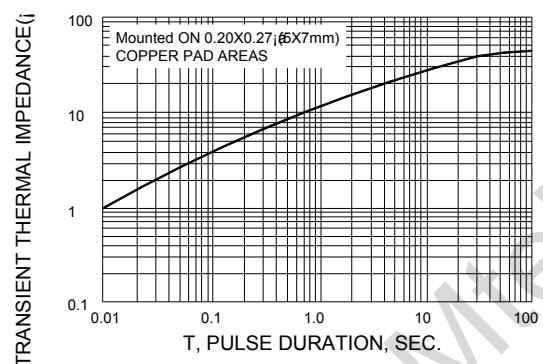
F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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