

CURRENT 3.0 Ampere
 VOLTAGE RANG 50 to 1000 Volts

S3AB THRU S3MB

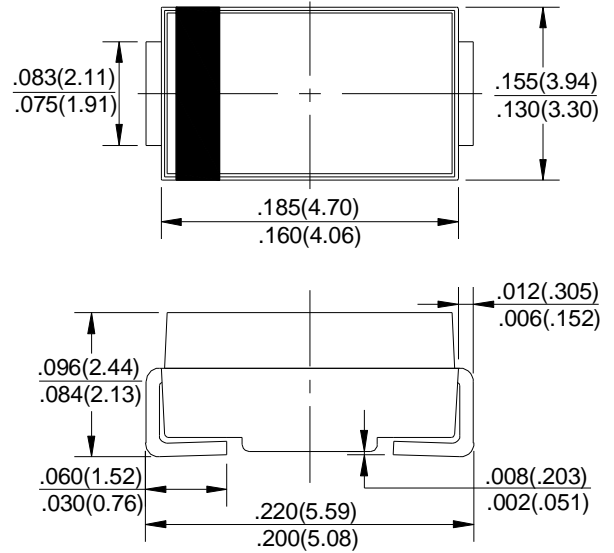
FEATURES

- 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 /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: 0.003ounce, 0.09 3 gram

DO-214AA (SMB)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified

	SYMBOLS	S3A	S3B	S3D	S3G	S3J	S3K	S3M	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_L=100$ (NOTE 3)	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) $T_L=100$	I_{FSM}	100							Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.15							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25$	10.0							A
	$T_A = 125$	250							
Typical Reverse Recovery Time (NOTE 1)	T_{rr}	2.5							s
Typical junction capacitance (NOTE 2)	C_J	60							pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JL}$	47							/W
	$R_{\theta JA}$	13							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							

Notes:

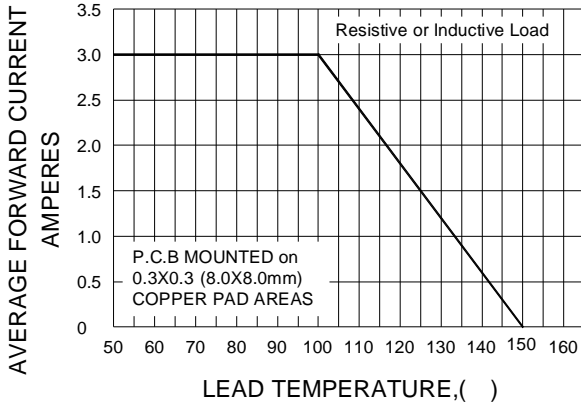
- Reverse recovery test conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$
- Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
- Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.3×0.3 (8.0 x 8.0mm) copper pad areas.

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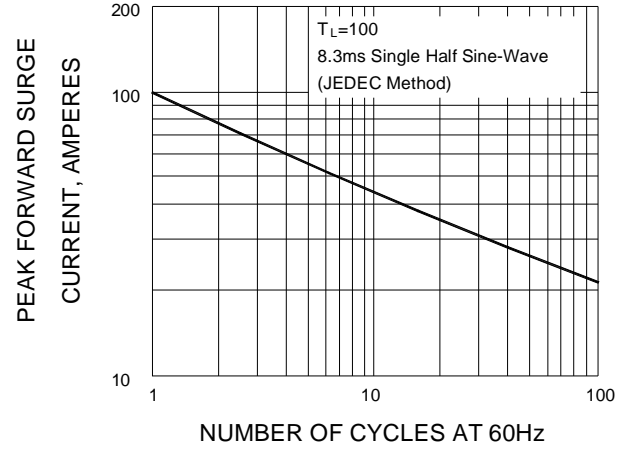
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RATING AND CHARACTERISTIC CURVES S3A Thru S3M

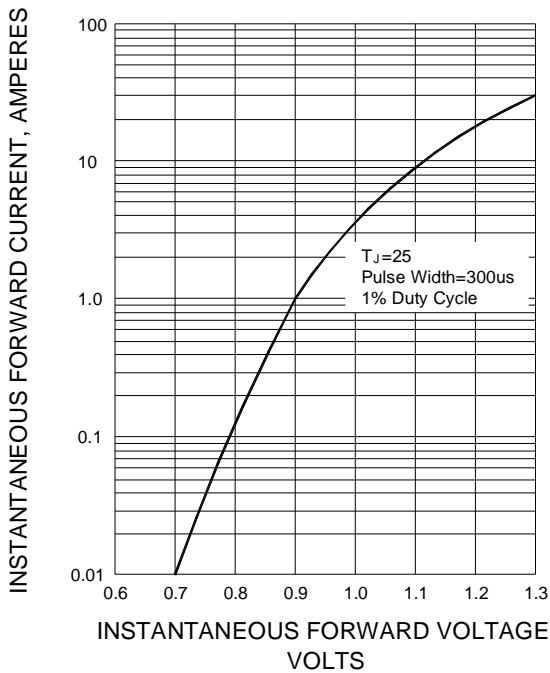
F1G.1-FORWARD CURRENT DERATING CURVE



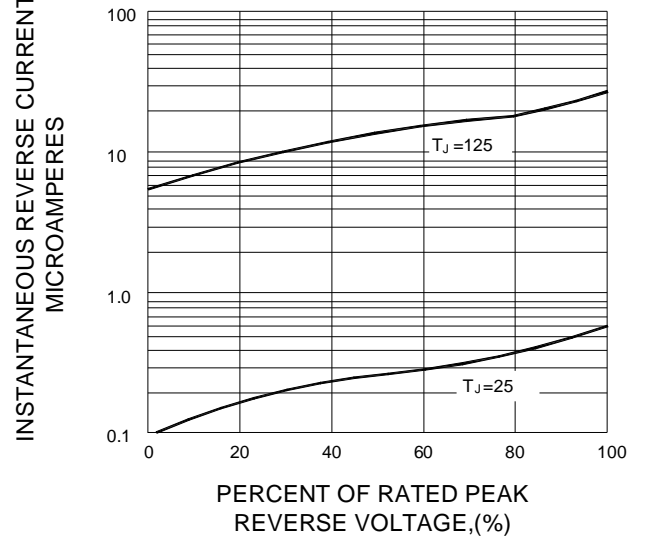
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



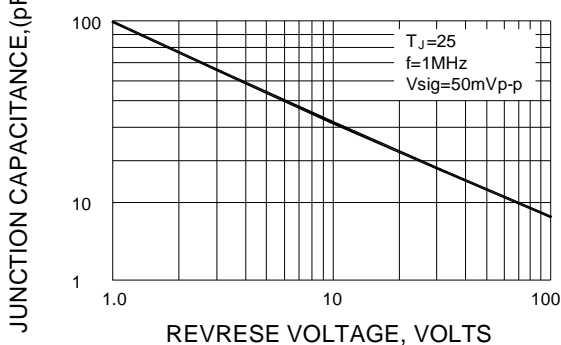
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

