

CURRENT 3.0 Ampere  
 VOLTAGE RANG 50 to 1000 Volts

# S3A THRU S3M

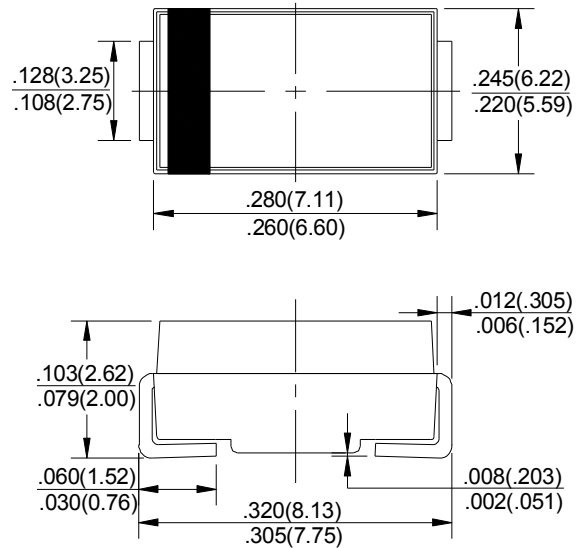
## FEATURES

- 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-214AB 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, 0.21 gram

### DO-214AB/SMC



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:

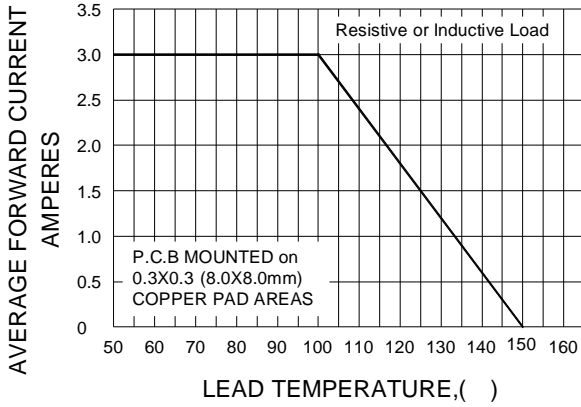
- Reverse recovery test conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{rr}=0.25A$
- Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
- Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with  $0.3 \times 0.3$ " ( $8.0 \times 8.0$ mm) copper pad areas.

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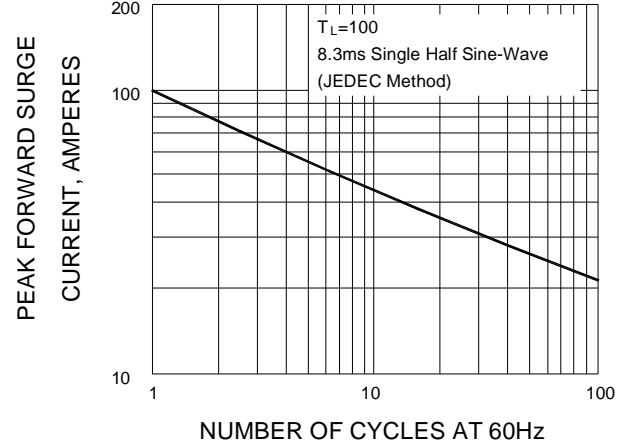
**S3A THRU S3M**

RATING AND CHARACTERISTIC CURVES S3A Thru S3M

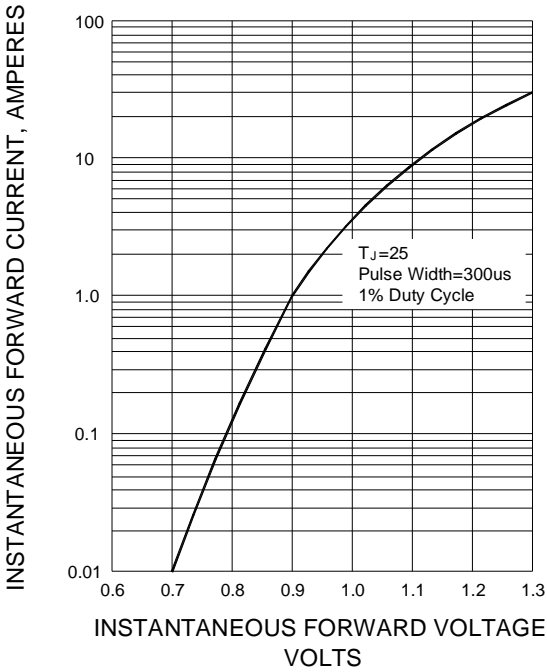
F1G.1-FORWARD CURRENT DERATING CURVE



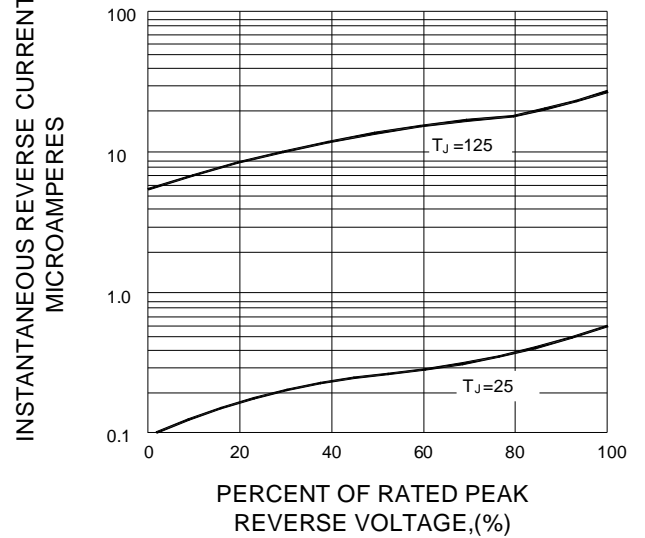
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



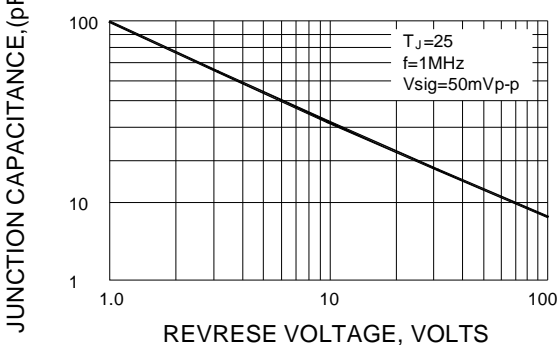
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

