

GS3A THRU GS3M

SURFACE MOUNT GENERAL RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 3.0 Ampere

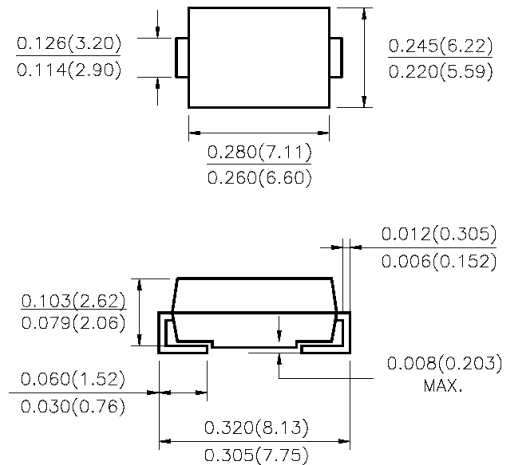
FEATURES

- ◆ 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-214AB molded plastic over glass passivated chip
- ◆ Terminals: Solder plated, Solderable per MIL-STD-750, method 2026
- ◆ Polarity: Color band denotes cathode end

DO-214AB (SMC)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOLS	GS3A	GS3B	GS3D	GS3G	GS3J	GS3K	GS3M	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 $T_L = 100^\circ\text{C}$ (NOTE 3)	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) $T_L = 100^\circ\text{C}$	I_{FSM}	100							Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.10							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	10.0							μA
	$T_A = 125^\circ\text{C}$	25							
Typical Reverse Recovery Time (NOTE 1)	T_{rr}	2.5							μs
Typical junction capacitance (NOTE 2)	C_J	60							pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JL}$	47							$^\circ\text{C}/\text{W}$
	$R_{\theta JA}$	13							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

Note: 1. Reverse recovery test conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$

2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

3. 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.

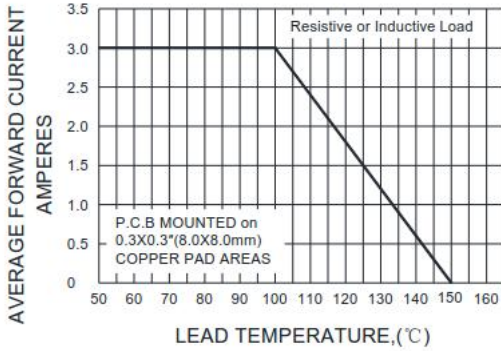
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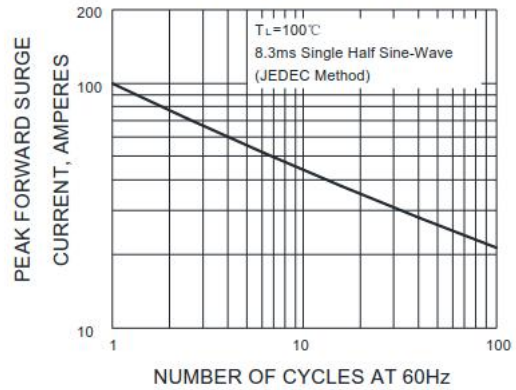
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RATING AND CHARACTERISTIC CURVES GS3A THRU GS3M

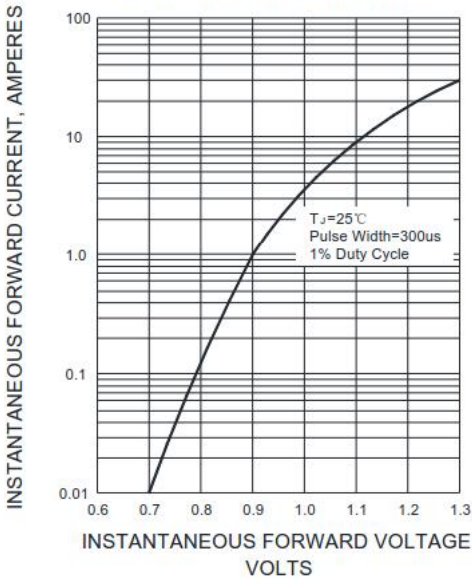
F1G.1-FORWARD CURRENT DERATING CURVE



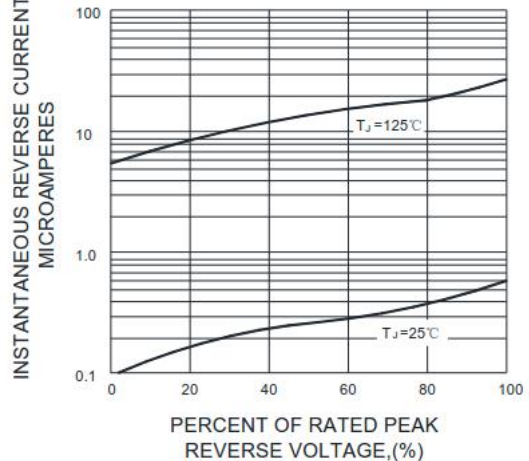
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



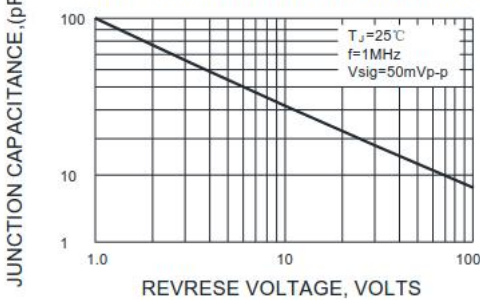
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



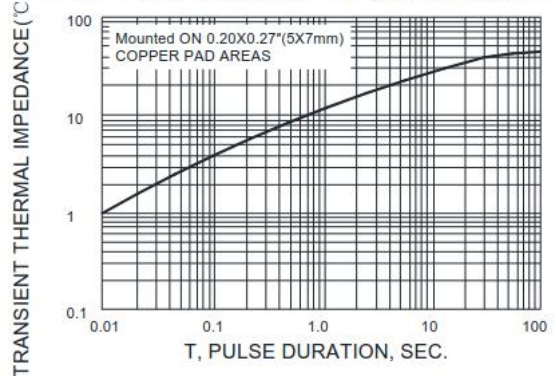
F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.