GS3A-K THRU GS3M-K

SURFACE MOUNT GLASS PASSIVATED RECTIFIER

VOLTAGE: 50 to 1000V **CURRENT: 3.0A**

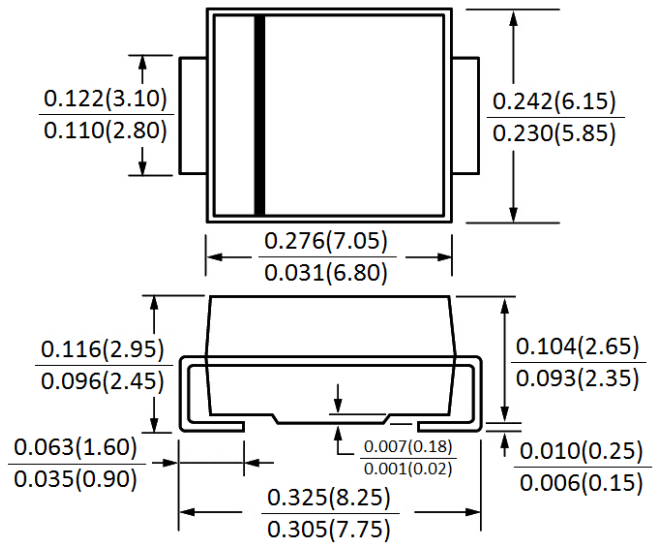
FEATURE

Ideal for surface mount pick and place application
Low profile package
Built-in strain relief
High surge capability
High temperature soldering guaranteed
260℃/10sec/at terminals

MECHANICAL DATA

Terminal: Plated leads solderable per J-STD-002
Case: Molded with UL-94 class V-0 recognized Flame Retardant Epoxy
Polarity: color band denotes cathode

SMC-1



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60Hz, resistive or inductive load rating at 25℃, unless otherwise stated)

	Symbol	GS3 A-K	GS3 B-K	GS3 D-K	GS3 G-K	GS3 J-K	GS3 K-K	GS3 M-K	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	Vdc	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 3/8″lead length at T_L =75℃	If(av)	3.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	100							A
Maximum Forward Voltage at rated Forward current	Vf	1.1							V
Rating for fusing (3ms≤ t < 8.3ms)	I^2t	45							A^2Sec
Maximum DC Reverse Current Ta =25℃	Ir	5.0							μ A
at rated DC blocking voltage Ta =125℃		250.0							
Typical Junction Capacitance (Note 1)	Cj	60.0							pF
Typical Thermal Resistance (Note 2)	Rth(jl)	13.0							℃/W
Storage and Operating Temperature Range	Tj, Tstg	-50 to +150							℃

Note:
1. Measured at 1.0 MHz and applied voltage of 4.0Vdc
2. Thermal Resistance from Junction to terminal mounted on 8×8mm copper pad area

FIG. 1 - FORWARD CURRENT DERATING CURVE

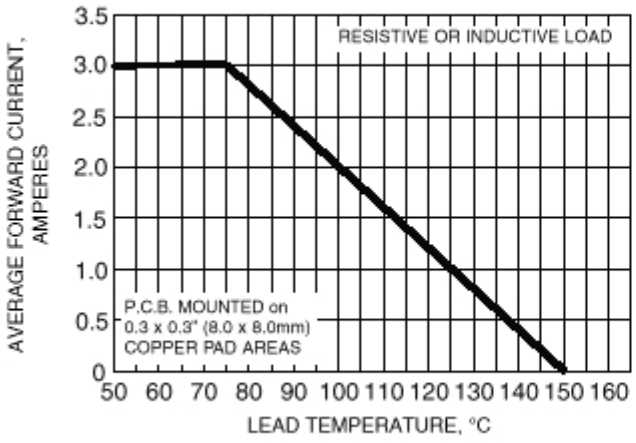


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

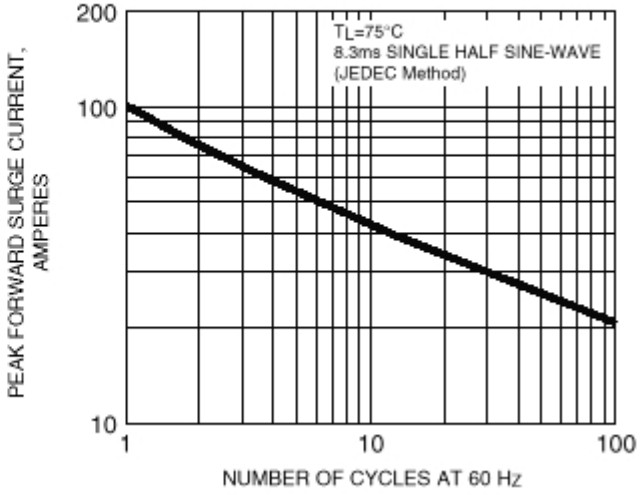


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

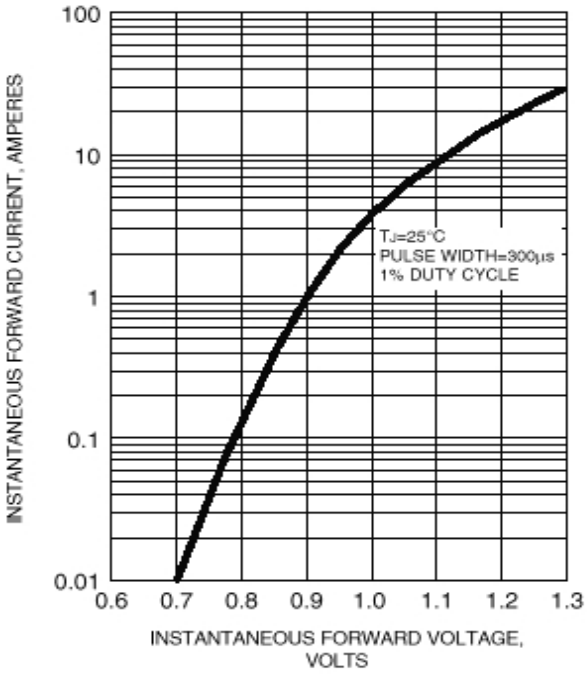


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

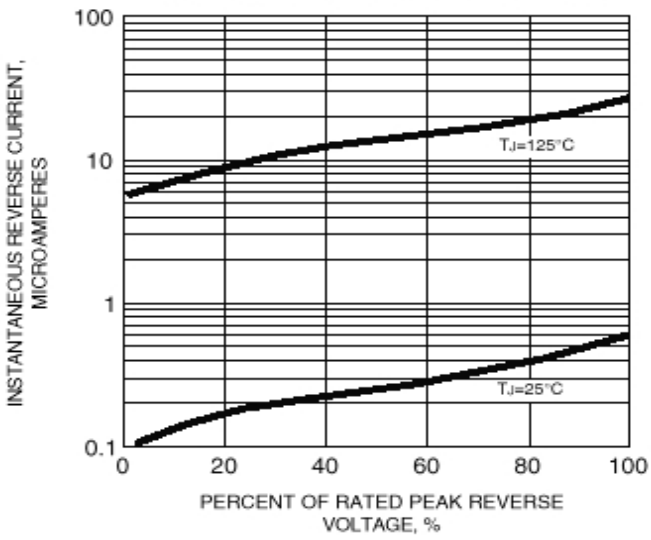


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

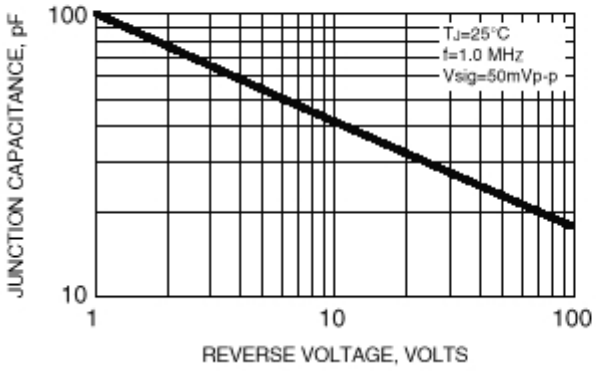


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE