



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

GS1A / M1
THRU
GS1M / M7

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SILICON RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts

CURRENT 1.0 Ampere

FEATURES

- * Ideal for surface mounted applications
- * Low leakage current
- * Glass passivated junction

MECHANICAL DATA

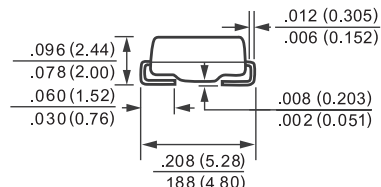
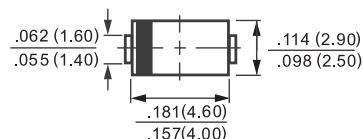
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



SMA(DO-214AC)



Dimensions in inches and (millimeters)

		GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M		
	SYMBOL	M1	M2	M3	M4	M5	M6	M7	UNITS	
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA = 75°C		IO	1.0							Amps
Peak Forward Surge Current IFM(surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		IFSM	30							Amps
Maximum Forward Voltage at 1.0A DC		VF	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@TA = 25°C	IR	5.0							uAmps
	@TA = 125°C		50							
Maximum Reverse Recovery Time (Note 3)		trr	2.5							uSec
Typical Thermal Resistance (Note 2)		RθJL	30							°C/W
Typical Junction Capacitance (Note 1)		Cj	15							pF
Operating and Storage Temperature Range		TJ, TSTG	-65 to + 175							°C

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0VDC
2. Thermal Resistance (Junction to Ambient), .24in² (6.0mm²) copper pads to each terminal.
3. Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

RATING AND CHARACTERISTIC CURVES

(GS1A THRU GS1M)
M1 M7

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

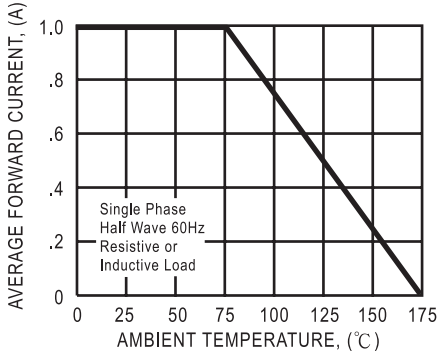


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

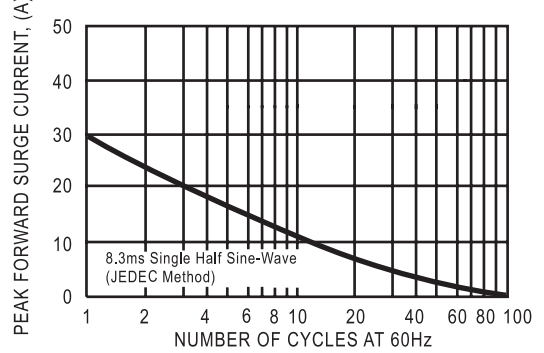


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

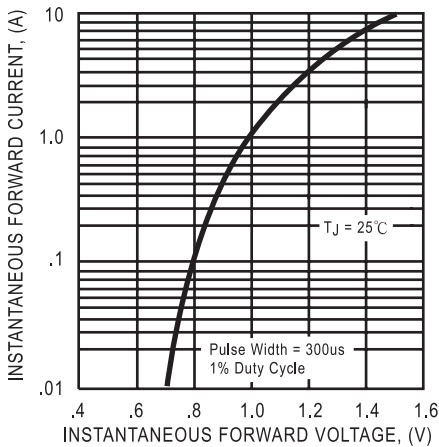


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

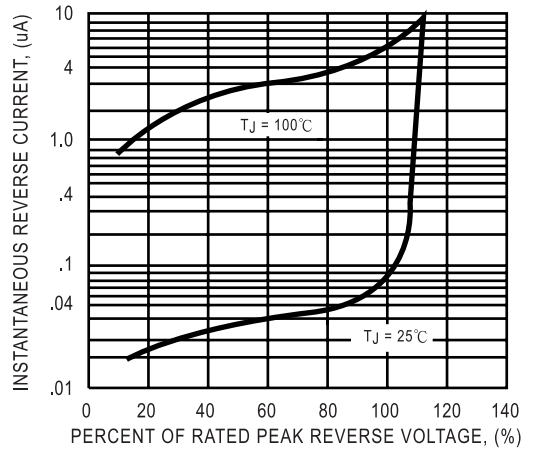
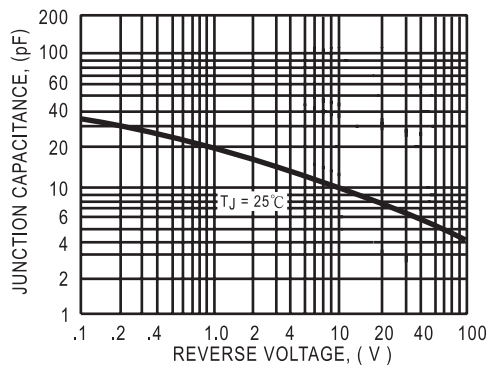


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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