



**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**

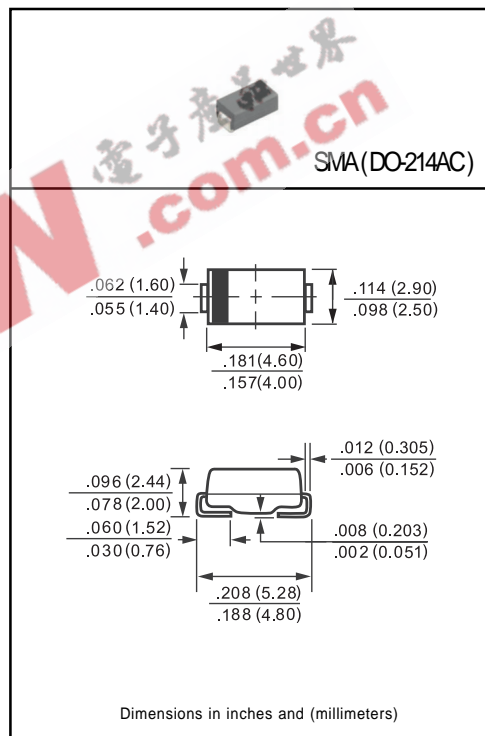
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Glass passivated junction

**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%.



		GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M		
Maximum Recurrent Peak Reverse Voltage	VRRM	M1 50	M2 100	M3 200	M4 400	M5 600	M6 800	M7 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	IR	@ TA = 25°C	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), .24in<sup>2</sup> (6.0mm<sup>2</sup>) copper pads to each terminal.  
3. Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A.

RATING AND CHARACTERISTIC CURVES

( GS1A THRU GS1M )  
( M1 M7 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

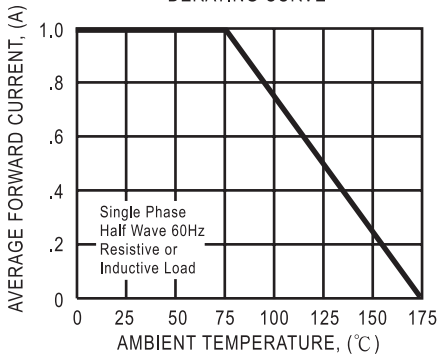


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

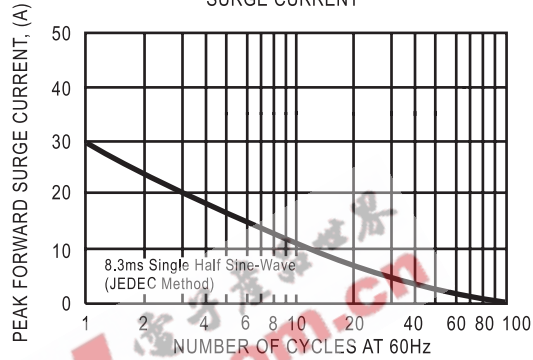


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

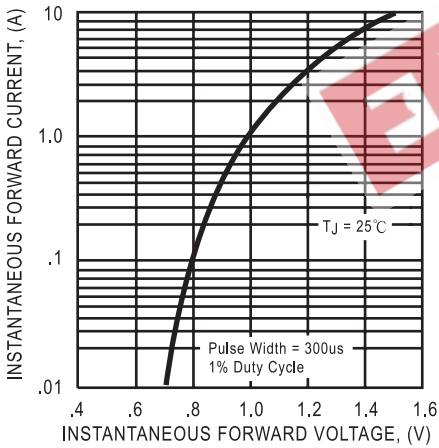


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

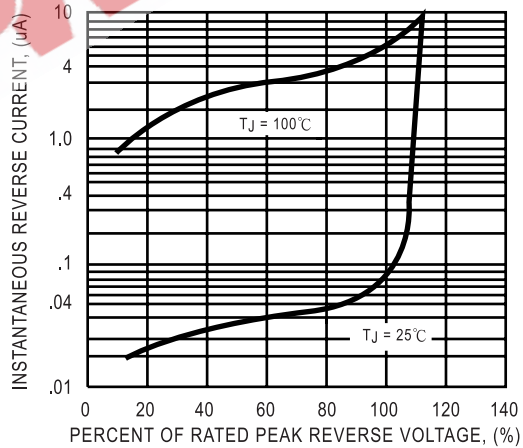
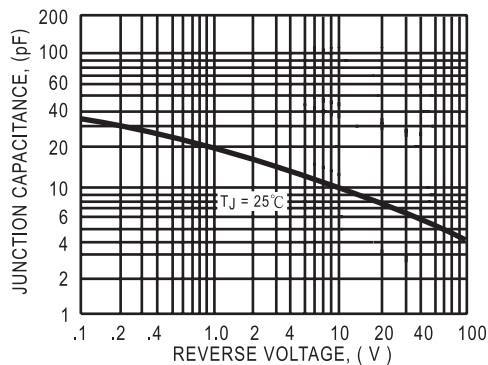


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



DC COMPONENTS CO., LTD.