

GS1A thru GS1M SERIES

SURFACE MOUNT RECTIFIER



CHENG-YI
ELECTRONIC



FEATURES

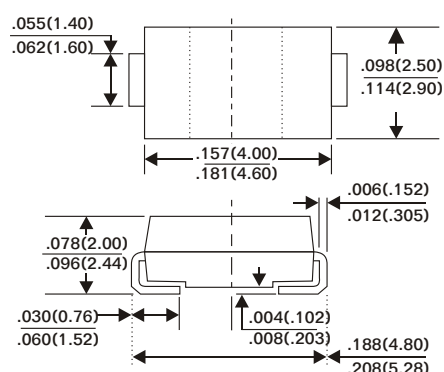
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwrites Laboratory Flammability Classification 94V-O
- Glasspassivated chip junction
- high temperature soldering:260°C/10seconds at terminals

MECHANICAL DATA

- Case:JEDEC Do-201AD molded plastic
- Terminals:plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity:Indicated by cathode band
- Standard Packaging: 12mm tape (EIA STD EIA-481)
- Weight:0.002 ounce, 0.064 gram

VOLTAGE RANGE 50 TO 1000 Volts
CURRENT 1.0 Amperes

SMA/DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATINGS	SYMBOL	GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	UNITS
Maximum Recurrent 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 $\bar{T} = 100^{\circ}\text{C}$	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.10							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A = 25^{\circ}\text{C}$ @ $T_A = 125^{\circ}\text{C}$	I_R	5.0 50							μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	2.5							μS
Typical Junction Capacitance (Note 2)	C_J	12.0							pF
Maximum Thermal Resistance (Note 3)	$R_{\theta JL}$	30.0							$^{\circ}\text{C} / \text{W}$
Operating and Storage Temperature Range	$T_J \quad T_{STG}$	-50 to +150							$^{\circ}\text{C}$

Notes : 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 MHz and Applied $V_r = 4.0$ volts
3. 8.0mm^2 (0.13mm thick) land areas

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RATING AND CHARACTERISTICS CURVES GS1A THRU GS1M

Fig. 1 - FORWARD CURRENT
DERATING CURVE

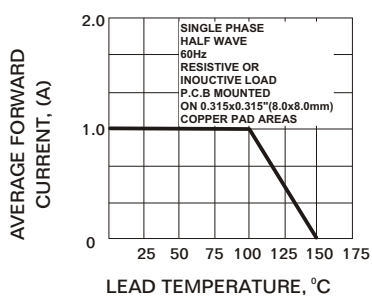


Fig. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD
SURGE CURRENT

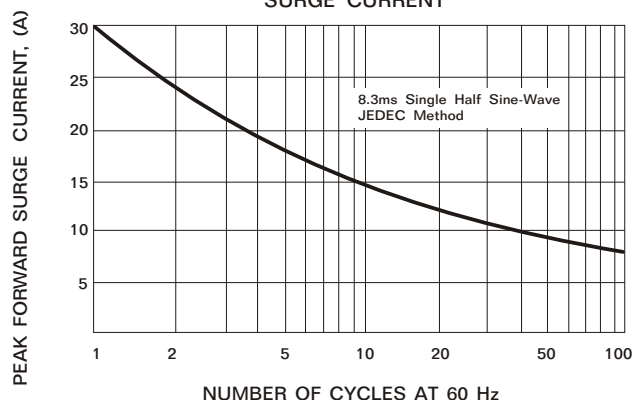


Fig. 3 - TYPICAL REVERSE CHARACTERISTICS

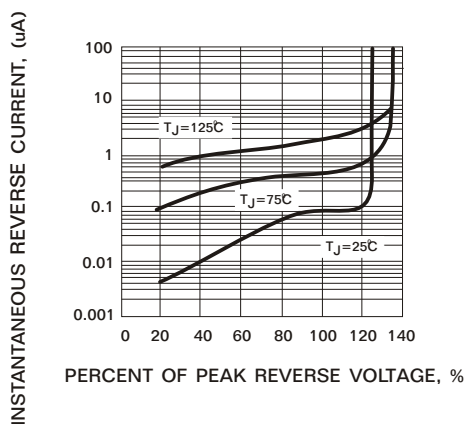


Fig. 4 - TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

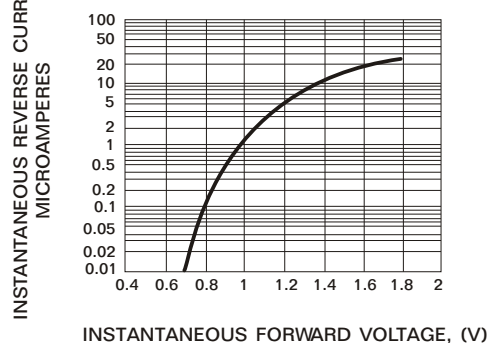


Fig. 5 - TRANSIENT THERMAL IMPEDANCE

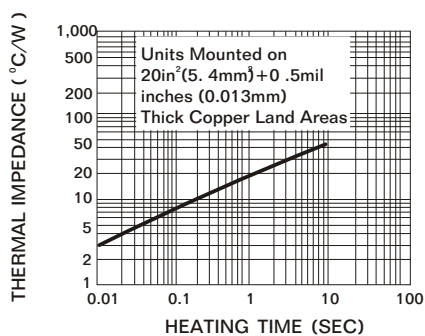


Fig. 6 - TYPICAL JUNCTION CAPACITANCE

