YEA SHIN TECHNOLOGY CO., LTD

GS1A-A THRU GS1M-A

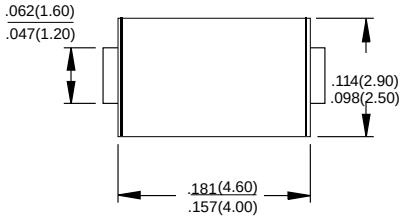
SURFACE MOUNT RECTIFIER

VOLTAGE- 50 to 1000 Volts CURRENT - 1.0 Amperes

FEATURES

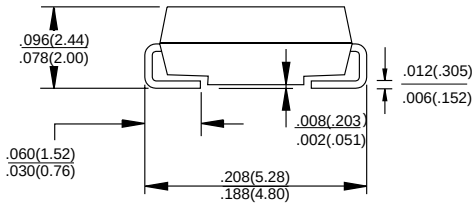
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Plastic package has UL Flammability Classification 94V-0
- Low forward drop
- Glass passivated dip Junction
- High temperature solding : 260 ^{O}C / 10 seconds at terminals
- Pb free product at availabe: 99% Sn above meet RoHS environment substance directive request
- AEC-Q101 qualified

SMA/DO-214AC Unit:inch(mm)



MECHANICAL DATA

- Case : JEDEC DO-214AC molded plastic
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Standard packaging : 12mm tape (EIA-481)



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%.

PARAMETER	SYMBOL	GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current, at TL=75℃	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum Forward Voltage at 1.0A	V_F	1.1							V
Maximum DC Reverse Current at T_A=25℃ Rated DC Blocking Voltage T_A=125℃	I_R	5 100							uA
Typical Junction Capacitance (Note 1)	C_J	2.5							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	15							℃/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							℃

NOTES:

1. Measured at 1 MHz and applied Vr = 4.0 volts.
2. 8.0 mm^2 (.013mm thick) land areas.

DEVICE CHARACTERISTICS

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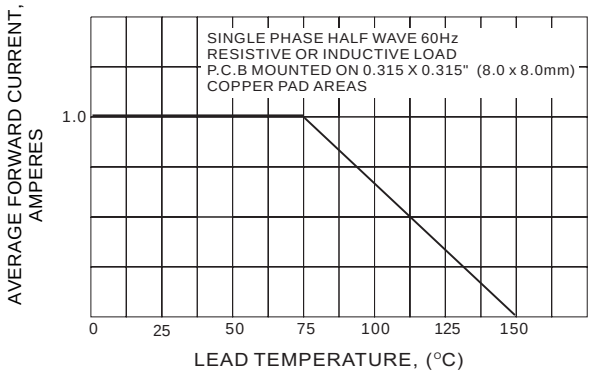

Fig. 1-FORWARD CURRENT DERATING CURVE

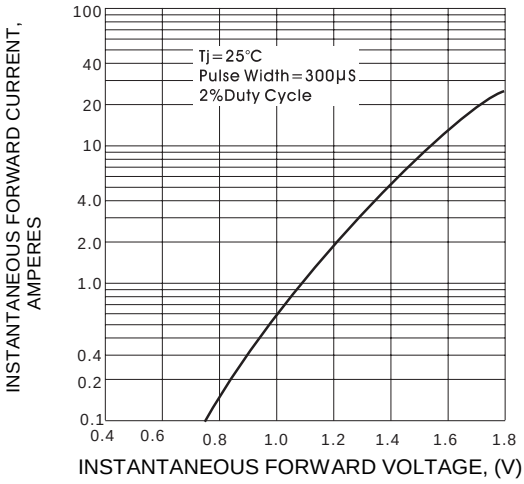

Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

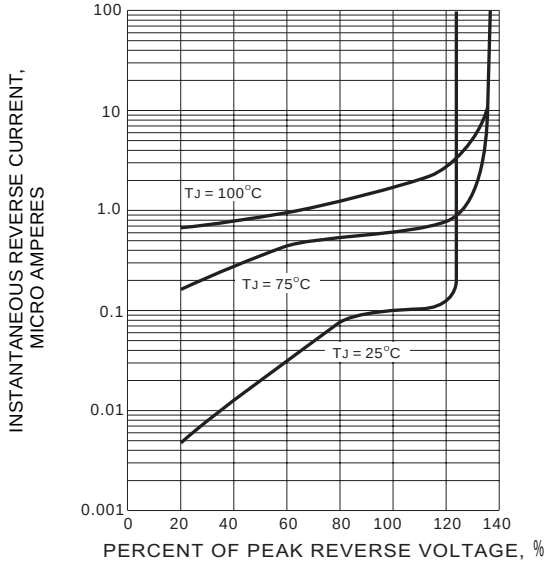

Fig. 3-TYPICAL REVERSE CHARACTERISTICS

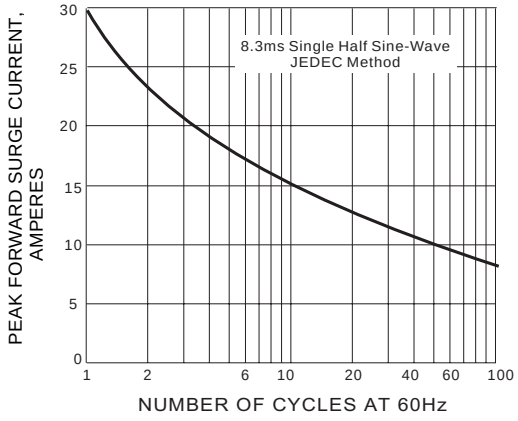

Fig. 4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

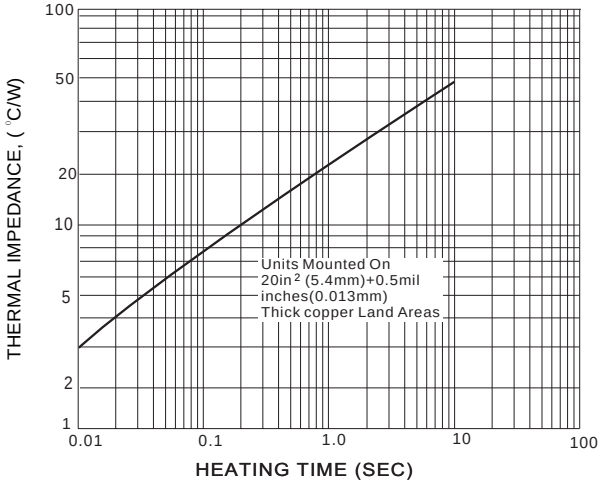

Fig. 5-TRANSIENT THERMAL IMPEDANCE

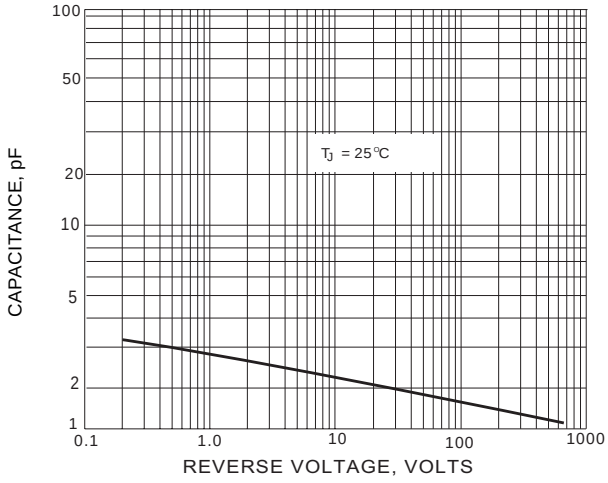

Fig. 6-TYPICAL JUNCTION CAPACITANCE