

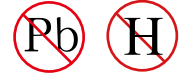


YEA SHIN TECHNOLOGY CO., LTD

GS1V

SURFACE MOUNT RECTIFIER

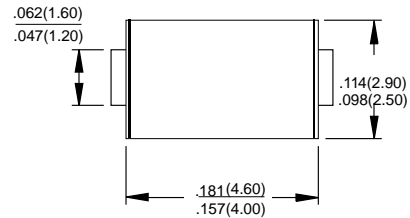
VOLTAGE- 2000 Volts CURRENT - 1.0 Amperes



Features

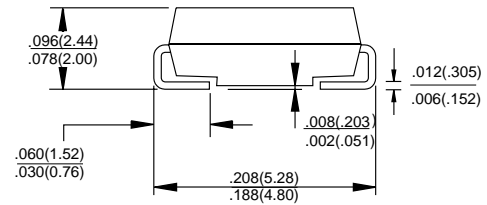
- Glass Passivated Die Construction
- Low forward voltage drop
- High current capability
- High reliability
- Metal silicon junction, majority carrier conduction
- Plastic Case Material has UL Flammability Classification Rating 94V-0

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



Mechanical Data

- Case: Molded plastic SMA
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Making: Type Number



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	GS1V	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	2000	V
Maximum RMS Voltage	V_{RMS}	1400	V
Maximum DC Blocking Voltage	V_{DC}	2000	V
Average Rectified Output Current @ $T_L = 100^\circ C$	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	35	A
Forward Voltage @ $I_F = 1.0A$	V_{FM}	1.2	V
Peak Reverse Current @ $T_A = 25^\circ C$	I_R	5.0	uA
At Rated DC Blocking Voltage @ $T_A = 125^\circ C$		50	
I^2t Rating for fusing (t < 8.3ms)	I^2t	5.08	A ² s
Typical Junction Capacitance (Note 1)	C_J	5.5	pF
Typical Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	110	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

- Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C
 2. Device mounted on FR-4 substrate, 1"×1", 2oz, single-sided, PC boards with 0.1"×0.15" copper pad.

DEVICE CHARACTERISTICS

GS1V

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

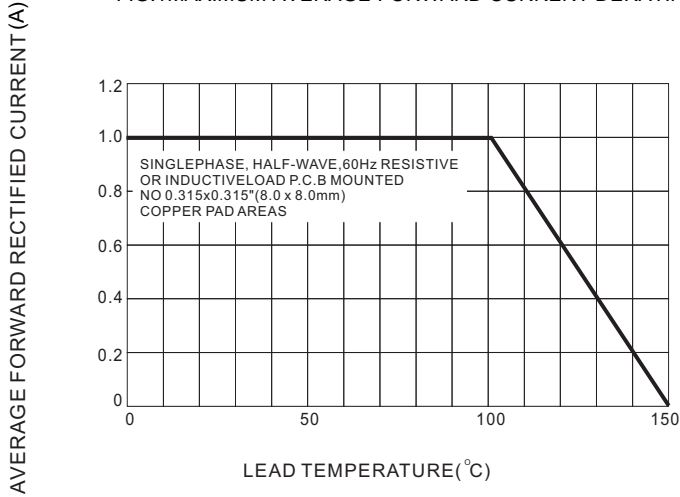


FIG.2-TYPICAL FORWARD CHARACTERISTICS

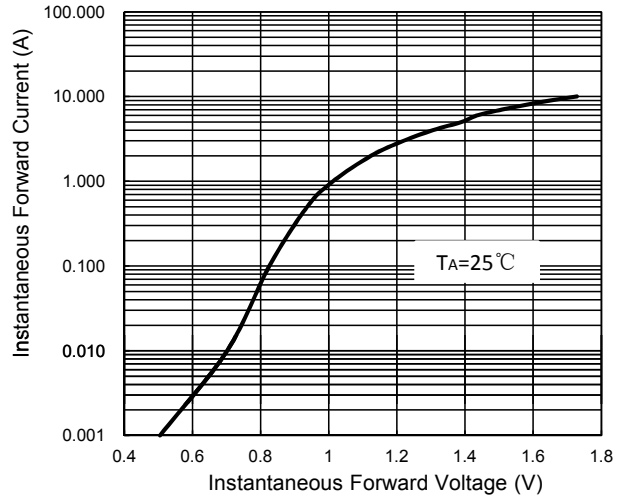


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

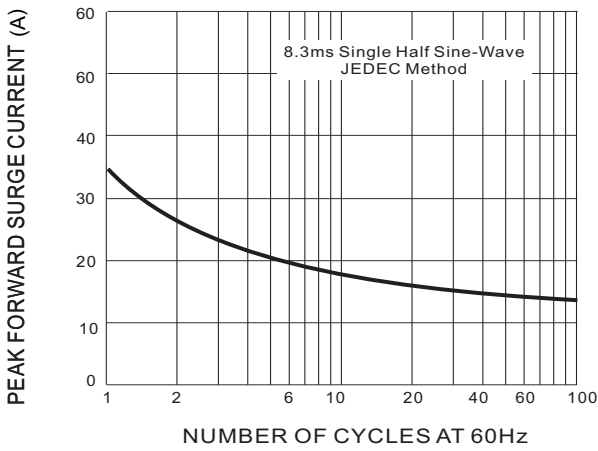


Fig. 4 Typical Reverse Characteristics (per element)

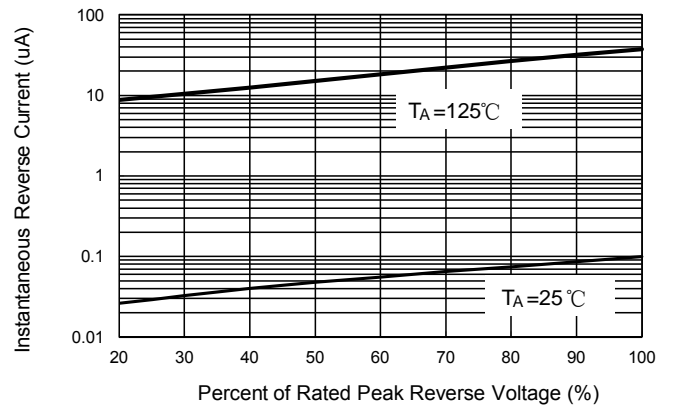


FIG.5 MOUNTING PAD LAYOUT

