勤昇科技股份有限公 司
Extensive Technology
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1N4001GS thru 1N4007GS

1.0A Glass Passivated Leaded Standard Rectifiers - *50V-1000V*

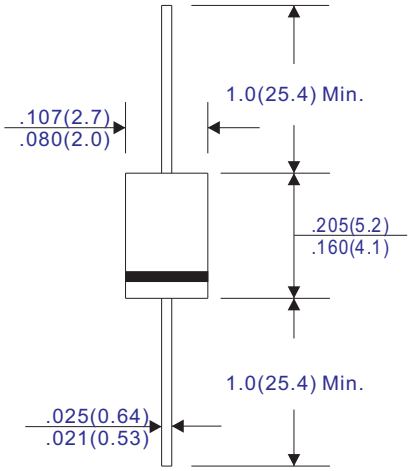
FEATURES

- Low drop down voltage
- High current capability
- Low reverse leakage
- High surge current capability
- Glass passivated chip junction
- Lead-free parts for green partner, meet RoHS requirements

MECHANICAL DATA

- Case: A-405 molded plastic
- Epoxy: UL94-V0 rated flame retardant
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.008 ounces, 0.23 grams

A-405



Unit :inch(mm)

MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

	Symbols	1N4001GS	1N4002GS	1N4003GS	1N4004GS	1N4005GS	1N4006GS	1N4007GS	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 See Figure 1	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC Method) T_L=110°C	I_{FSM}	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A= 25°C T_A=125°C	I_R	5.0 50.0							μA
Typical Reverse Recovery Time (Note 1)	Trr	1.8							μS
Typical Junction Capacitance (Note 2)	C_J	10							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	45							°C/W
Operating Junction Temperature Range	T_J	-55 ~ +150							°C
Storage Temperature Range	T_{STG}	-55 ~ +150							°C

Note 1. Reverse recovery time test condition, I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
3. Thermal resistance from junction to ambient

Fig.1 - Forward Current Derating Curve

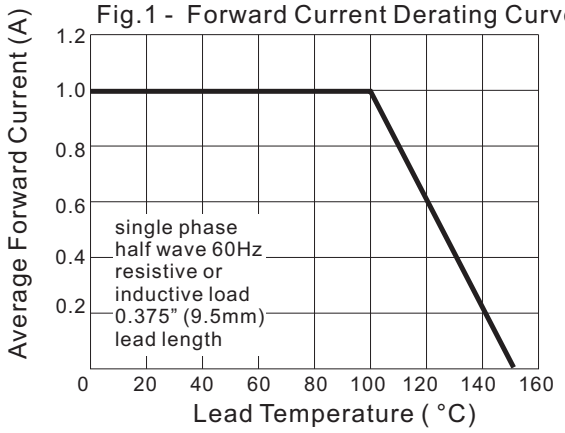


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

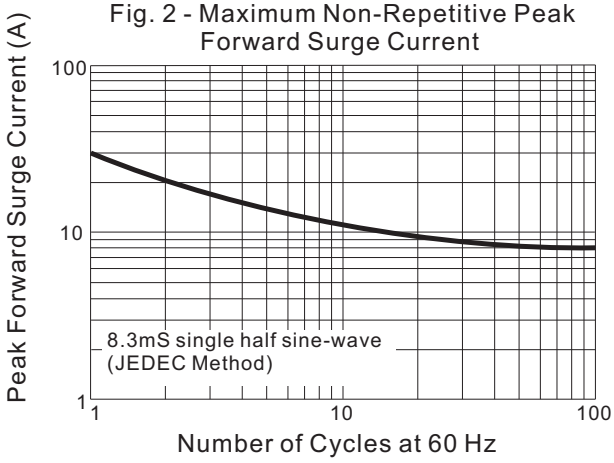


Fig. 3 - Typical Instantaneour Forward Characteristics

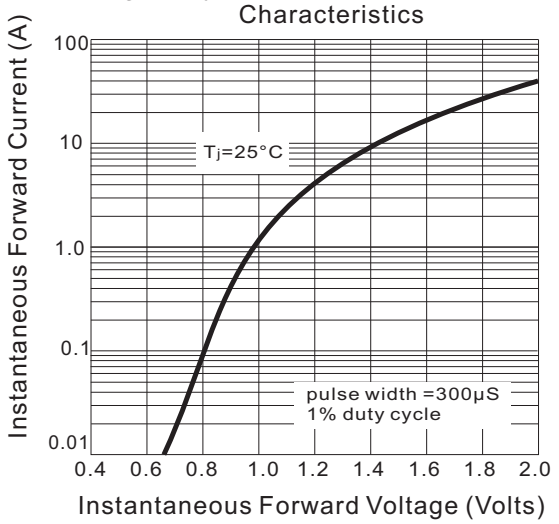


Fig. 4 - Typical Reverse Characteristics

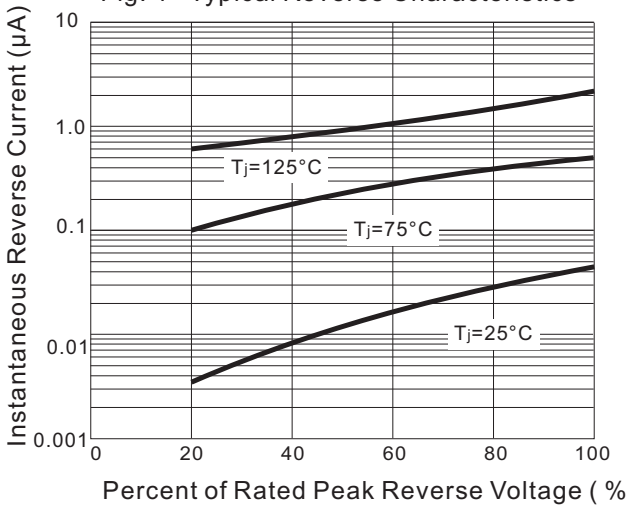


Fig. 5 - Typical Junction Capacitance