

Glass Passivated Junction Rectifier (Discontinued)

Features

- High temperature metallurgically bonded construction
- Glass passivated cavity-free junction package
- Capable of meeting environmental standards of MIL-S-19500
- 3.0 Ampere operation at $T_A=70^{\circ}\text{C}$ with no thermal runaway
- Hermetically sealed package
- Typical IR less than $0.1\mu\text{A}$
- High temperature soldering guaranteed:
 $350^{\circ}\text{C}/10$ seconds, $.037"$ (9.5mm) lead length,
 5lbs (2.3kg) tension



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Mechanical Data

Case:	Solid glass body
Terminals:	Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity:	Color band denotes cathode end
Mounting Position:	Any
Weight:	0.04 ounce, 1.1 gram

Maximum Ratings and Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	G3K	G3M	Unit	Conditions
VRRM	Maximum Repetitive Peak Reverse Voltage	800	1000	V	
VRMS	Maximum RMS Voltage	560	700	V	
VDC	Maximum DC Blocking Voltage	800	1000	V	
IF(AV)	Maximum Average Forward Rectified Current	3.0		A	0.375" (9.5 mm) lead length at $T_A=70^{\circ}\text{C}$
IFSM	Peak Forward Surge Current	125.0		A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)

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Symbol	Description	G3K	G3M	Unit	Conditions
V_F	Maximum Instantaneous Forward Voltage	1.1		V	I _F =3.0A
I_{R(AV)}	Maximum Full Load Reverse Current	200.0		μA	Full Cycle Average 0.375" (9.5 mm) lead length at T _A =70 °C
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0		μA	T _A =25 °C
		100.0			T _A =150 °C
T_{rr}	Typical Reverse Recovery Time	3.0		μs	Note 1
C_J	Typical Junction Capacitance	40.0		pF	Note 2
R_{thJA}	Typical Thermal Resistance	20.0		°C / W	Note 3
R_{thJL}		10.0			
T_J,T_{STG}	Operating Junction and Storage Temperature Range	-65 to +175		°C	

Notes:

1: Measured with I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.

2: Measured at 1.0MHz and applied reverse voltage of 4.0V

3: Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, with both leads mounted between heat sinks

Typical Characteristics Curves (T_A=25°C unless noted otherwise)

Fig.1-Max. Forward Current Derating Curve

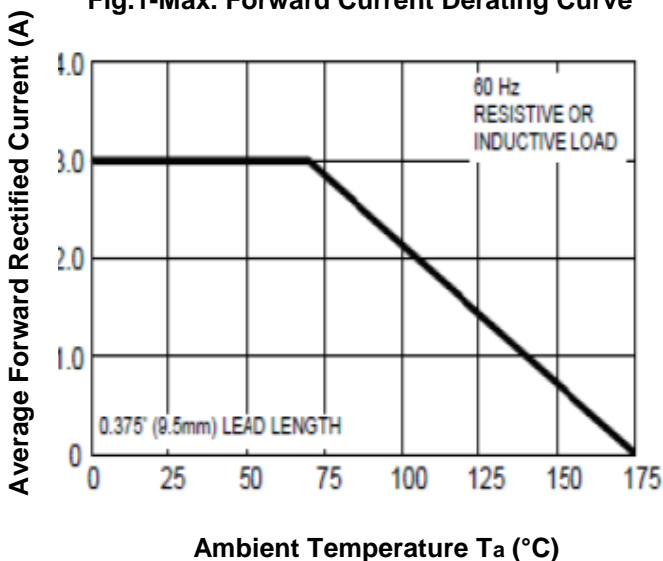
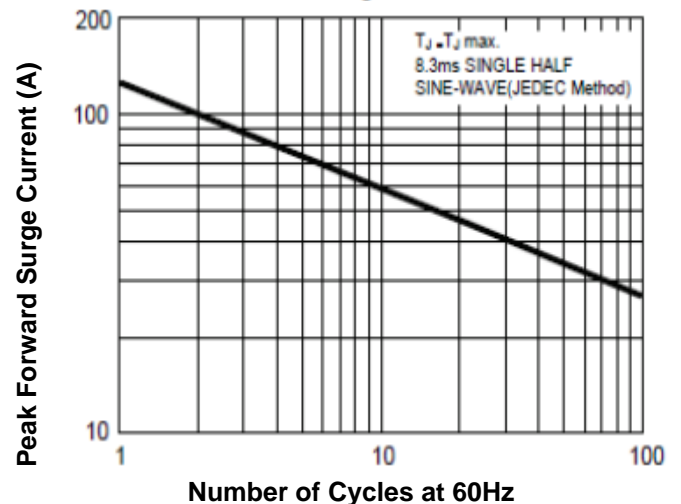


Fig.2-Max. Non-Repetitive Peak Forward Surge Current



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Fig.3- Typical Instantaneous Forward Characteristics

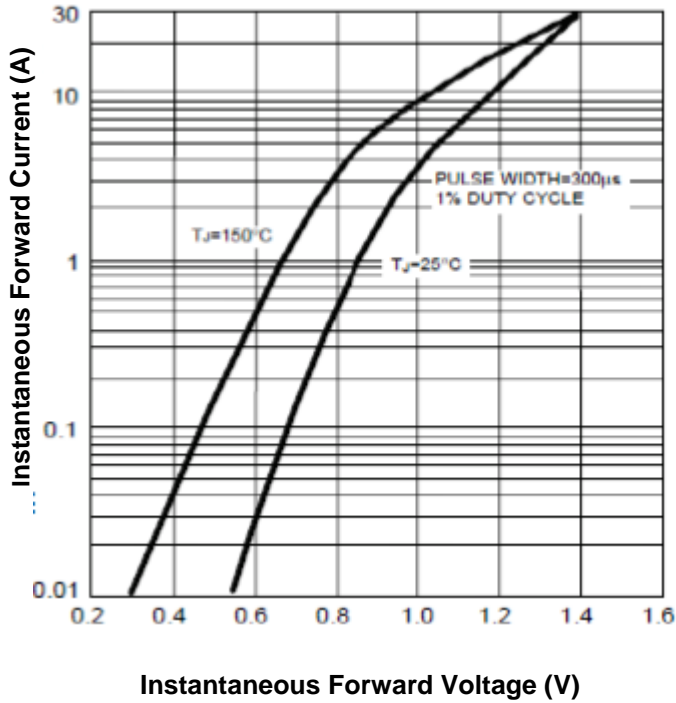


Fig.4-Typical Reverse Characteristics

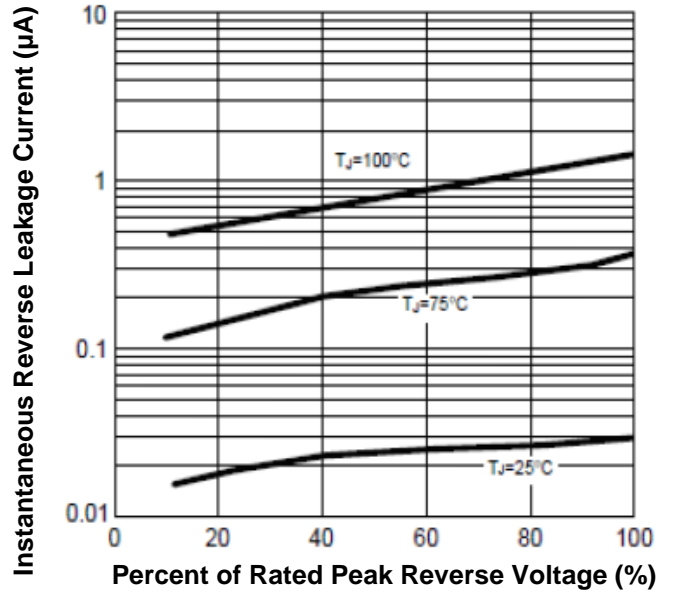
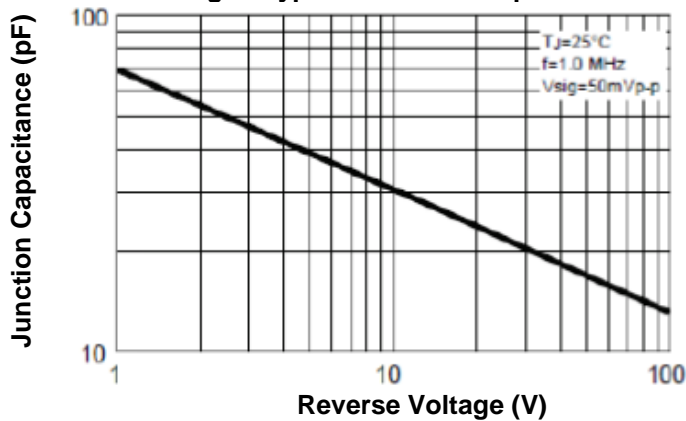
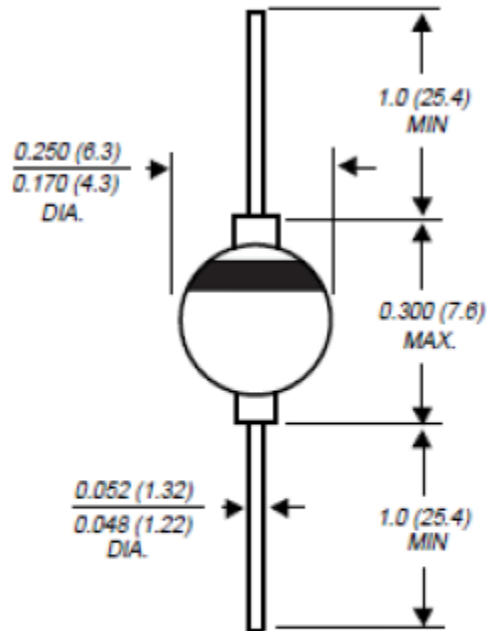


Fig.5- Typical Junction Capacitance



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Dimensions in inch (mm)



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Order Information

Part # to order	Manufacturer	Outline	Packing	RoHS Status
G3K/4-GSI-T30	General Semiconductor	G3	13" Tape and Reel	NO
G3M/4-GSI-T30	General Semiconductor	G3	13" Tape and Reel	NO

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