

RoHS
Compliant



Features:

- Glass passivated chip junction
- High efficiency, low V_F
- High current capability
- High reliability
- High surge current capability
- Low power loss

Specifications:

Mechanical Data:

Cases	: Moulded plastic
Lead	: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
Polarity	: Colour band denotes cathode end
High temperature soldering guaranteed	: 260°C/10 seconds/0.375 inch, (9.5mm) lead lengths at 5lbs., (2.3kg) tension
Mounting position	: Any
Weight	: 1.2 grams

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%.

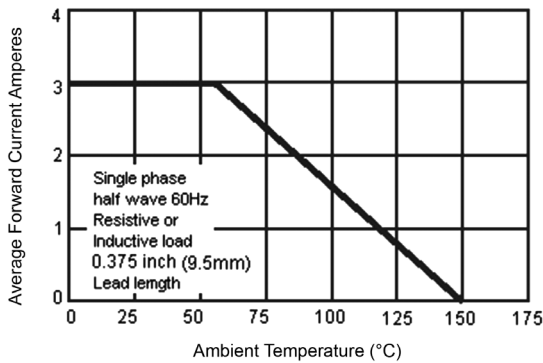
Characteristics	Symbol	Values	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	
Maximum DC Blocking Voltage	V_{DC}	1000	
Maximum Average Forward Rectified Current 0.375 inch (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$	$I_{(AV)}$	3	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	125	
Maximum Instantaneous Forward Voltage at 3A	V_F	1.3	V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	I_R	5 100	μA μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	500	nS
Typical Junction Capacitance (Note 2)	C_j	30	pF
Typical Thermal Resistance	$R_{\theta JA}$	35	°C/W
Operating Temperature Range	T_J	-65 to +150	°C
Storage Temperature Range	T_{STG}		

Notes:

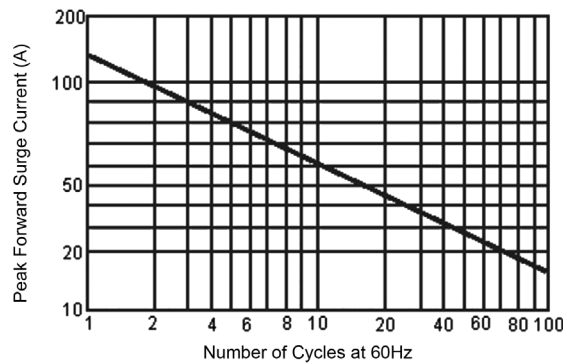
1. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1A$, $I_{RR} = 0.25A$.
2. Measured at 1MHz and Applied Reverse Voltage of 4 Volts DC.
3. Mount on Cu-Pad Size 16mm x 16mm on PCB.

Ratings and Characteristic Curves

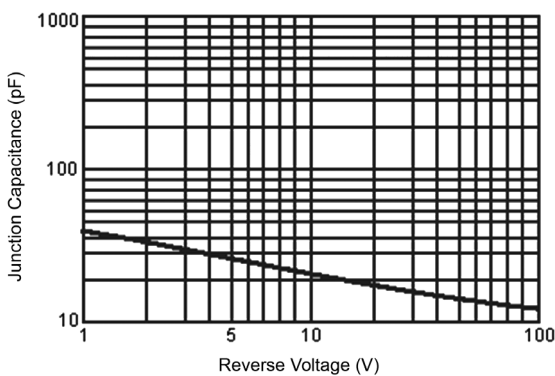
Maximum Forward Current Derating Curve



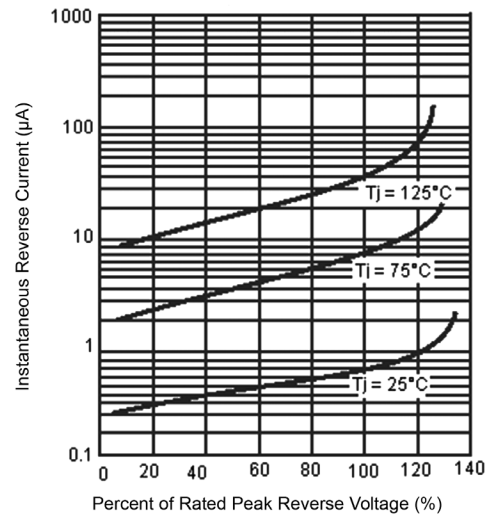
Maximum Non-Repetitive Peak Forward Surge Current



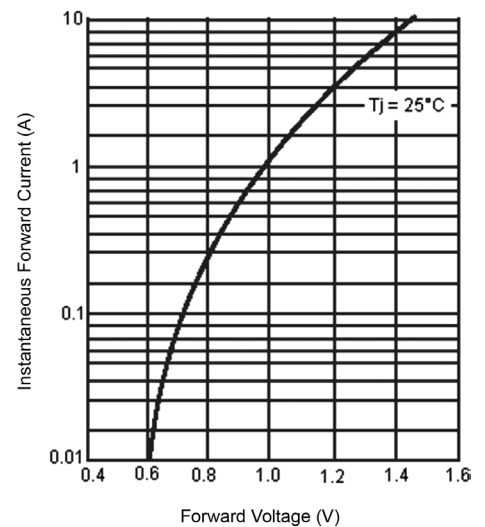
Typical Junction Capacitance



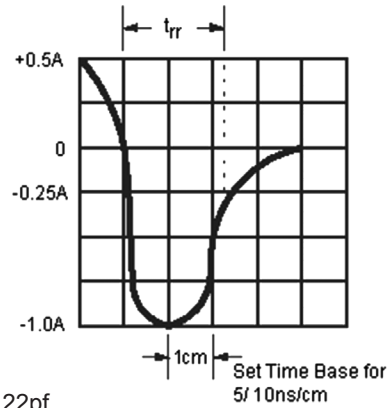
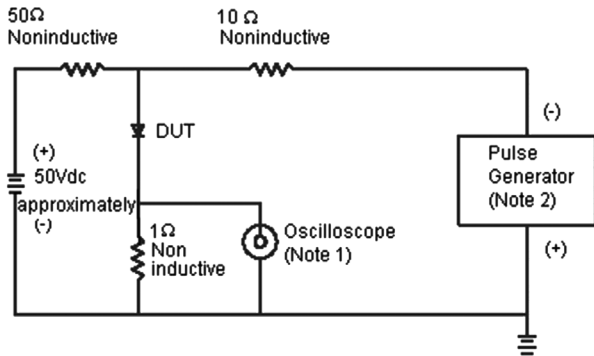
Typical Reverse Characteristics Per Leg



Typical Forward Characteristics



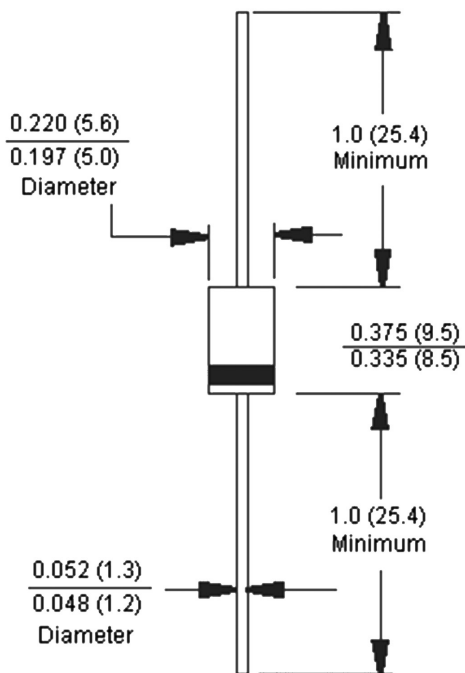
Reverse Recovery Time Characteristic and Test Circuit Diagram



Note: 1. Rise Time = 7ns Maximum. Input Impedance = 1 MΩ 22pf

Note: 2. Rise Time = 10ns Maximum Source Impedance = 50Ω

DO-201AD



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Diode, Fast, 3A, 1000V	FR307G+

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