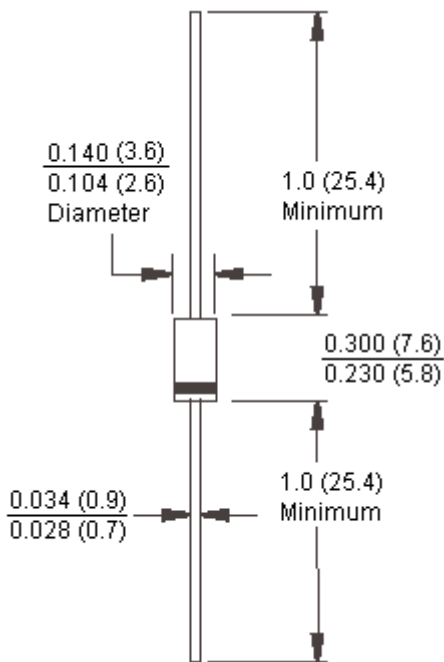




## Features:

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

## DO-15



Dimensions : Inches (Millimetres)

## 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	: 0.40 gram.

## 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	FR203G	FR205G	FR207G	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	600	1000	V
Maximum RMS Voltage	$V_{RMS}$	140	420	700	
Maximum DC Blocking Voltage	$V_{DC}$	200	600	1000	
Maximum Average Forward Rectified Current 0.375 inch (9.5mm) Lead Length at $T_A = 55^\circ\text{C}$	$I_{(AV)}$	2.0			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	55			
Maximum Instantaneous Forward Voltage at 2.0A	$V_F$	1.3			V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	$I_R$	5.0 100			$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	150	250	500	nS
Typical Junction Capacitance ( Note 2 )	$C_j$	20			pF
Typical Thermal Resistance	$R_{\theta JA}$	60			$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-65 to +150			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$				

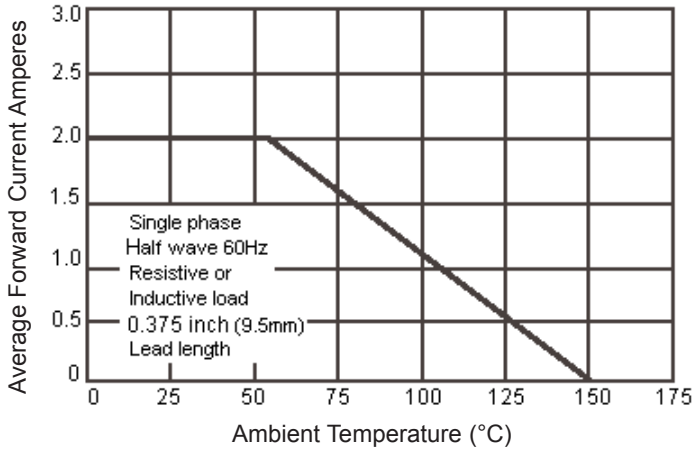
Notes: 1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .

2. Measured at 1MHz and Applied Reverse Voltage of 4.0 Volts DC.

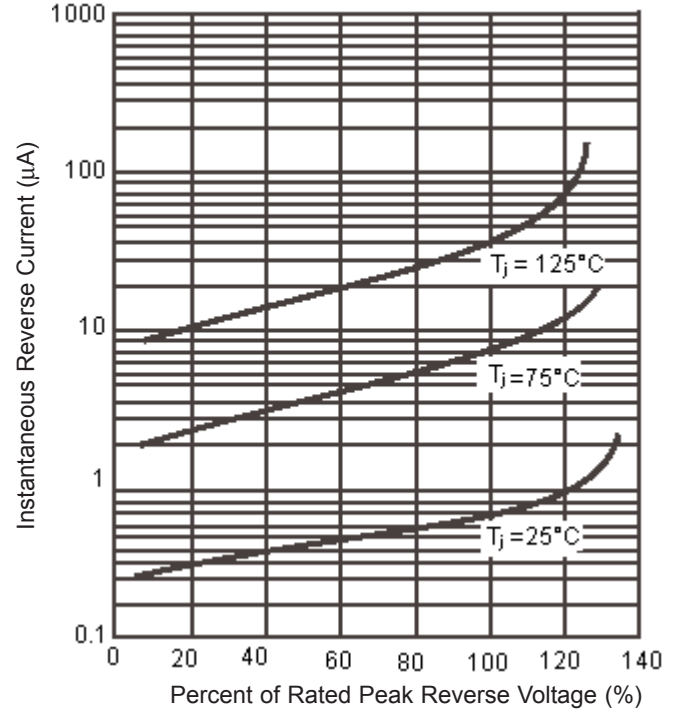
3. Mount on Cu-Pad Size 10mm x 10mm on PCB.

## Ratings and Characteristic Curves (FR203G, FR205G and FR207G)

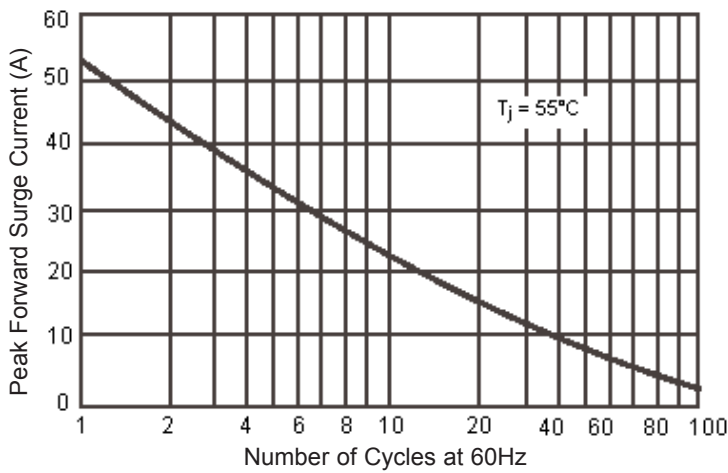
Maximum Forward Current Derating Curve



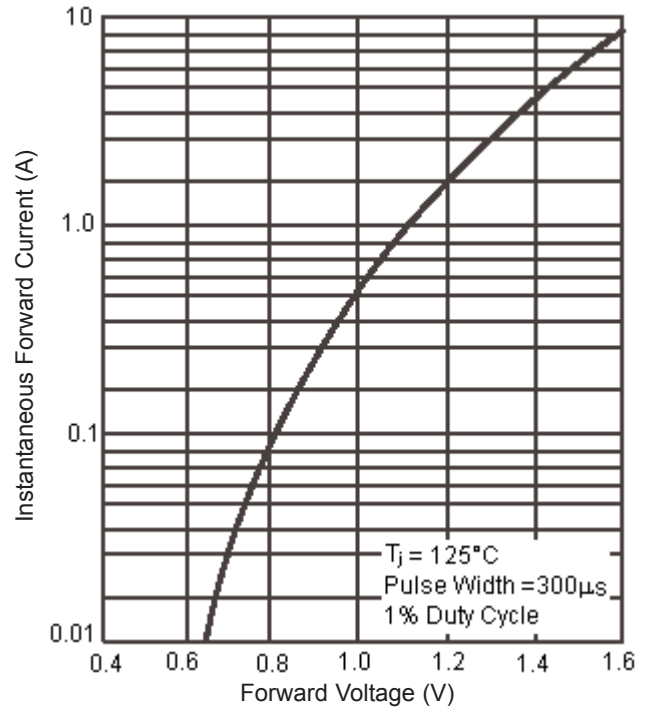
Typical Reverse Characteristics Per Leg



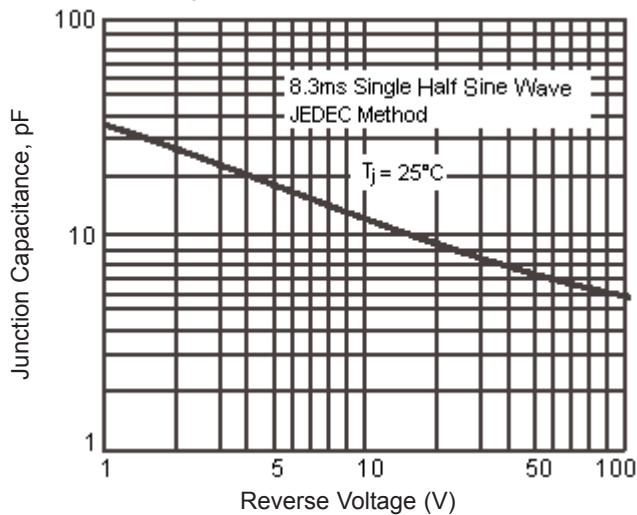
Maximum Non-Repetitive Forward Surge Current



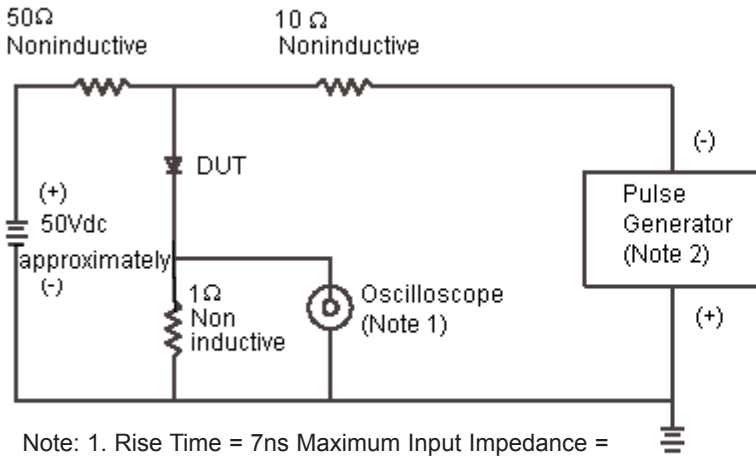
Typical Forward Characteristics



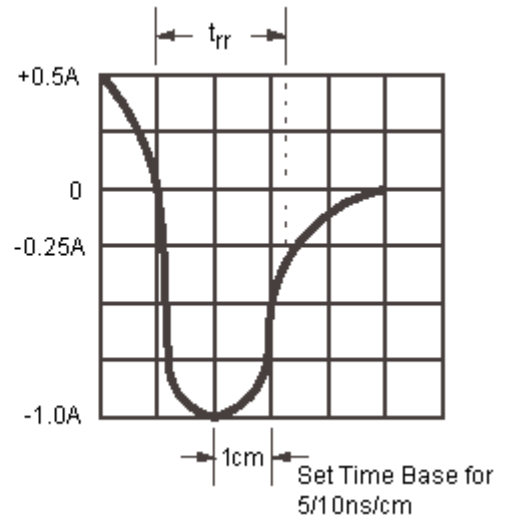
Typical Junction Capacitance



## Reverse Recovery Time Characteristic and Test Circuit Diagram



Note: 1. Rise Time = 7ns Maximum Input Impedance = 1 megohm 22pf.  
 2. Rise Time = 10ns Maximum Source Impedance = 50 ohms.



## Part Number Table

Description	Part Number
Diode, Fast, 2A, 200V	FR203G
Diode, Fast, 2A, 600V	FR205G
Diode, Fast, 2A, 1000V	FR207G

## Notes:

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