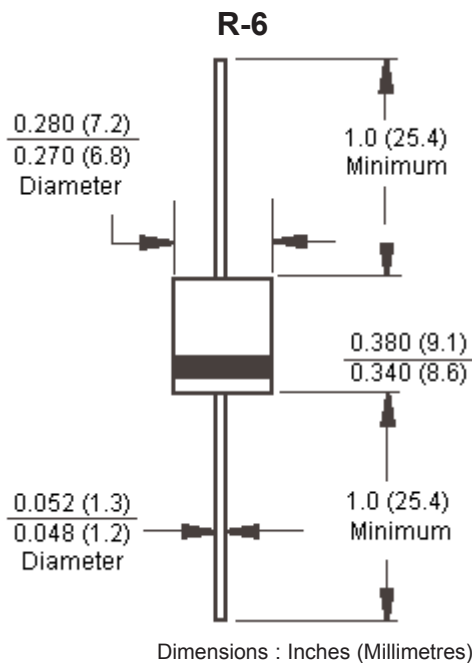




**RoHS
Compliant**

Features:

- Low forward voltage drop.
- High current capability.
- High reliability.
- High surge current capability.



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	: 1.65 grams.

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

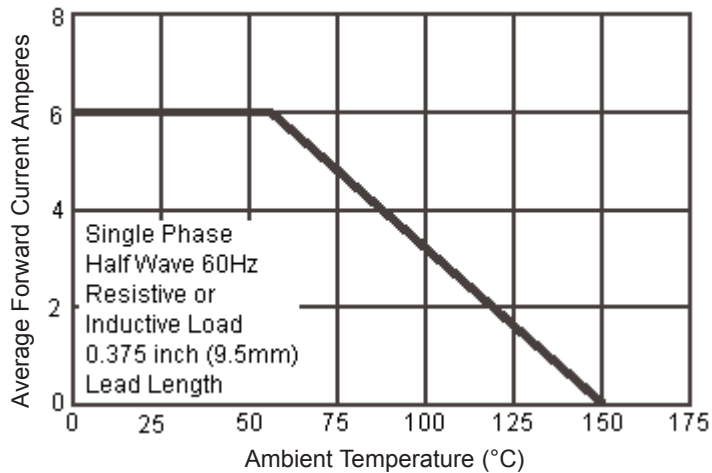
For capacitive load, derate current by 20%.

Type Number	Symbol	FR601G	FR602G	FR603G	FR604G	FR605G	FR607G	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	700	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	1000	
Maximum Average Forward Rectified Current 0.375 inch (9.5mm) Lead Length at T _A = 55°C	I _(AV)	6.0						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	250						
Maximum Instantaneous Forward Voltage at 6.0A	V _F	1.3						V
Maximum DC Reverse Current at T _A = 25°C at Rated DC Blocking Voltage at T _A = 125°C	I _R	5.0 200						μA μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150				250	500	nS
Typical Junction Capacitance (Note 2)	C _j	50						pF
Typical Thermal Resistance	R _{θJA}	30						°C/W
Operating Temperature Range	T _J	-65 to +150						°C
Storage Temperature Range	T _{STG}							

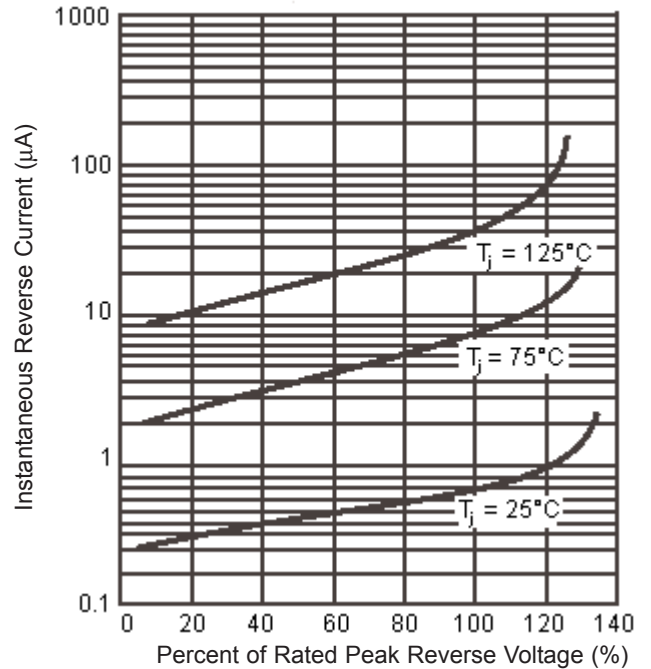
Notes: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.
 2. Measured at 1MHz and Applied Reverse Voltage of 4.0 Volts DC.
 3. Mount on Cu-Pad Size 16mm x 16mm on PCB.

Ratings and Characteristic Curves (FR601G thru FR607G)

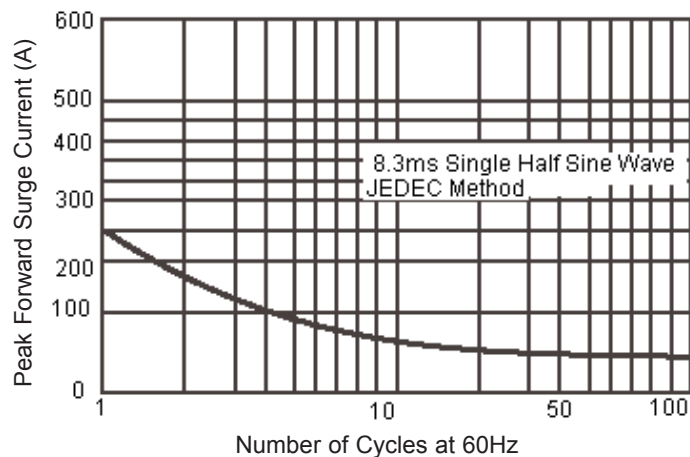
Maximum Forward Current Derating Curve



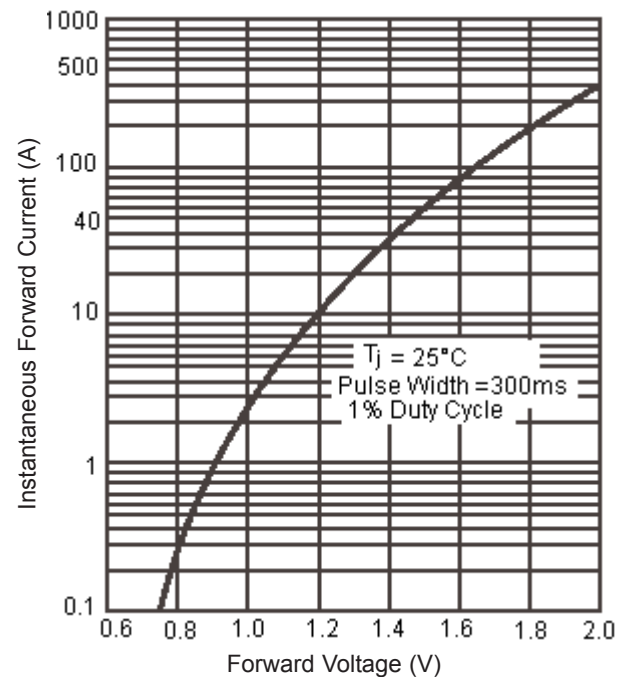
Typical Reverse Characteristics Per Leg



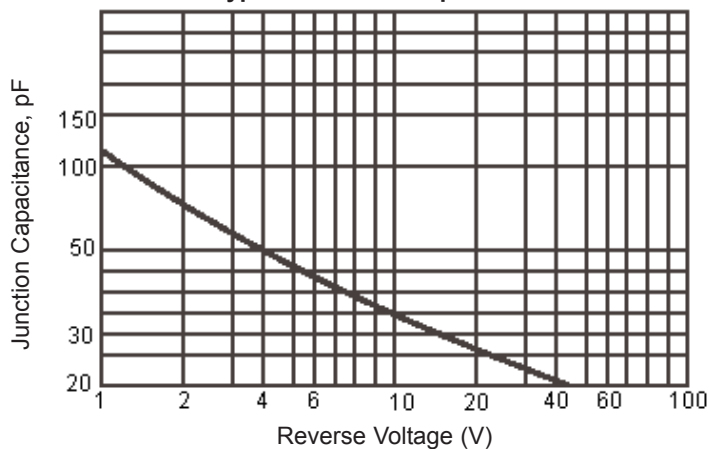
Maximum Non-Repetitive Forward Surge Current



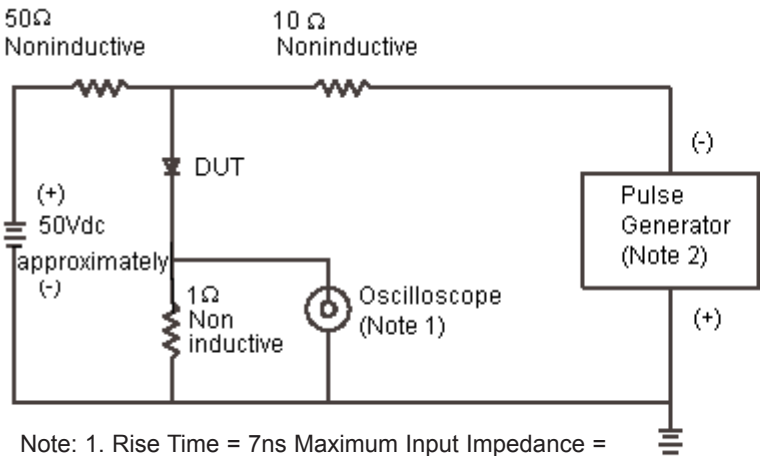
Typical Forward Characteristics



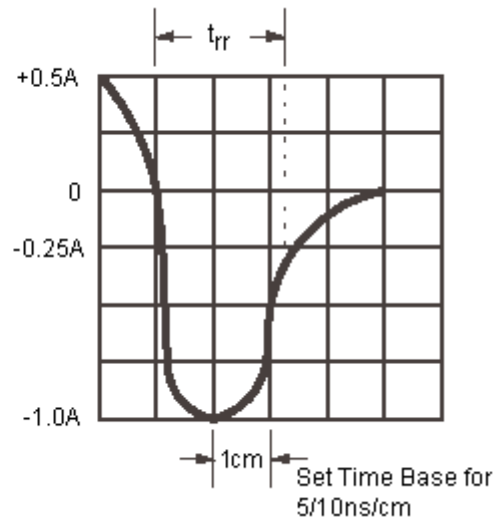
Typical Junction Capacitance



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, 6A, 50V	FR601G
Diode, Fast, 6A, 100V	FR602G
Diode, Fast, 6A, 200V	FR603G
Diode, Fast, 6A, 400V	FR604G
Diode, Fast, 6A, 600V	FR605G
Diode, Fast, 6A, 1000V	FR607G

FR60xG Series



Notes:

International Sales Offices:

 AUSTRALIA – Farnell Tel No: ++61 1300 361 005 Fax No: ++61 1300 361 225	 FINLAND – Farnell Tel No: ++ 358 9 560 7780 Fax No: ++ 358 9 345 5411	 ITALY – Farnell Tel No: ++ 39 02 93 995 200 Fax No: ++ 39 02 93 995 300	 SPAIN – Farnell Tel No: 901 20 20 80 Fax No: 901 20 20 90
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