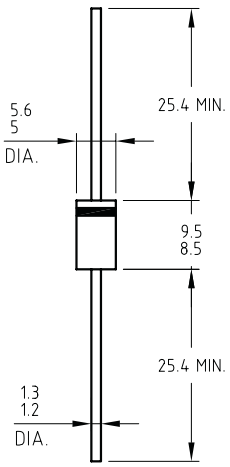
4.0 Amp. Glass Passivated Ultrafast Rectifiers

Pb RoHS COMPLIANCE

DO-201AD



Dimensions in mm.

Voltage	**Current**
200 V to 600 V	4.0 A

- High efficiency, low VF
- High current capability
- High reliability
- High surge current capability
- Low power loss.
- For use in low voltage, high frequency inventor, free wheeling, and polarity protection application.

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V0 rate flame retardant
- Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode
- High temperature soldering guaranteed: 260 °C/10 seconds/9.5mm lead lengths at 2.3kg tension
- Mounting position: Any
- Weight: 1.2 grams

Maximum Ratings and Electrical Characteristics at 25 ºC

		FSF 44G	FSF 46G	FSF 48G
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	200	400	600
V_{RMS}	Maximum RMS Voltage (V)	140	280	420
V_{DC}	Maximum DC Blocking Voltage (V)	200	400	600
$I_{F(AV)}$	Maximum Average Forward Rectified Current 9.5mm Lead Length @ T_A = 55 °C	4.0 A		
I_{FSM}	Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	125 A		
T_{rr}	Maximum Reverse Recovery Time from I_F = 0.5A; I_R = 1A; I_{RR} = 0.25A	35 nS		
C_j	Typical Junction Capacitance at 1 MHz and reverse voltage of 4V_{DC}	100 pF	80 pF	
T_j	Operating Temperature Range	-65 to +150 °C		
T_{stg}	Storage Temperature Range	-65 to +150 °C		

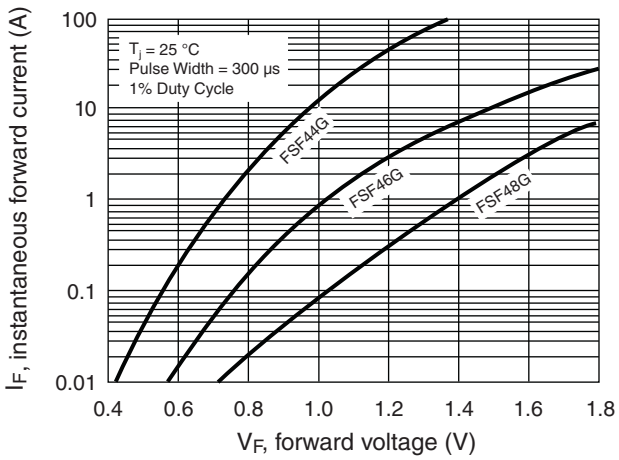
Electrical Characteristics at Tamb = 25 °C

V_F	Maximum Instantaneous Forward Voltage @ = 4.0 A	1.0 V	1.3 V	1.7 V
I_R	Maximum DC Reverse Current @ T_A = 25 °C at Rated DC Blocking Voltage @ T_A =100 °C	5 µA 500 µA		
$R_{th\ (j-a)}$	Thermal Resistance	25 °C/W		

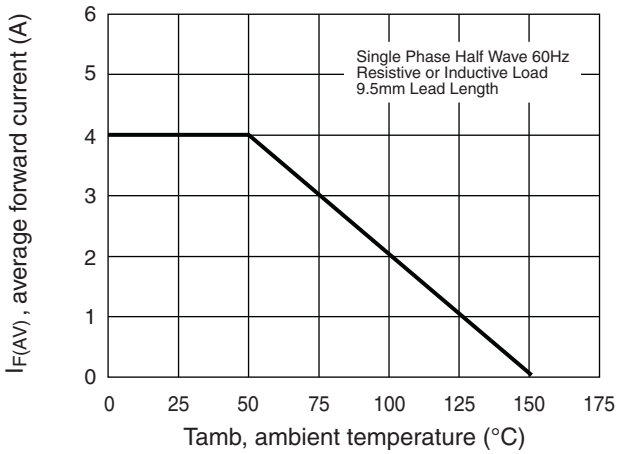
NOTE: Mount on Cu-Pad size 16mm x 16mm on P. C. B.

Rating And Charasterictic Curves

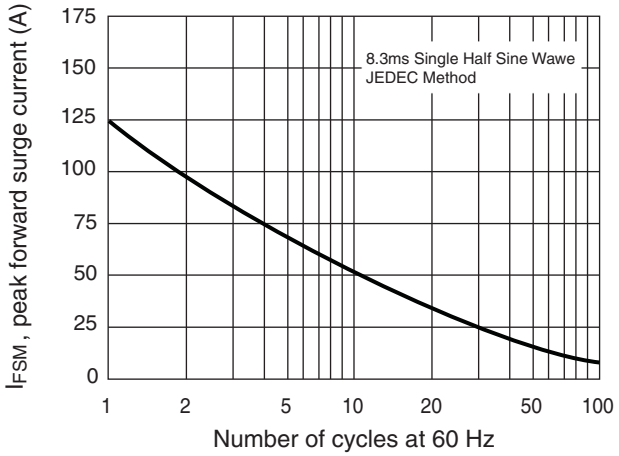
TYPICAL FORWARD CHARACTERISTICS



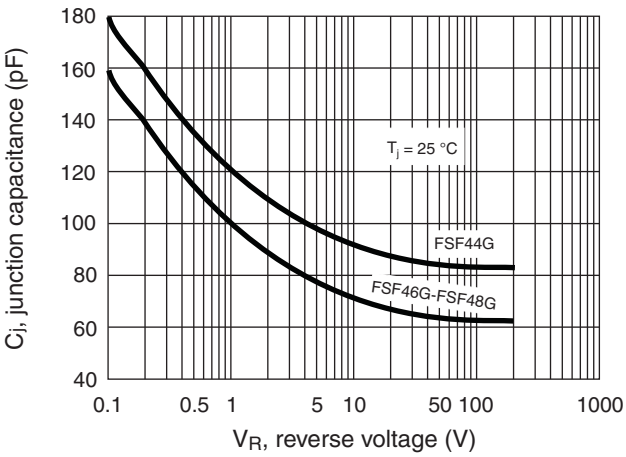
MAXIMUM AVERAGE FORWARD CURRENT DERATING



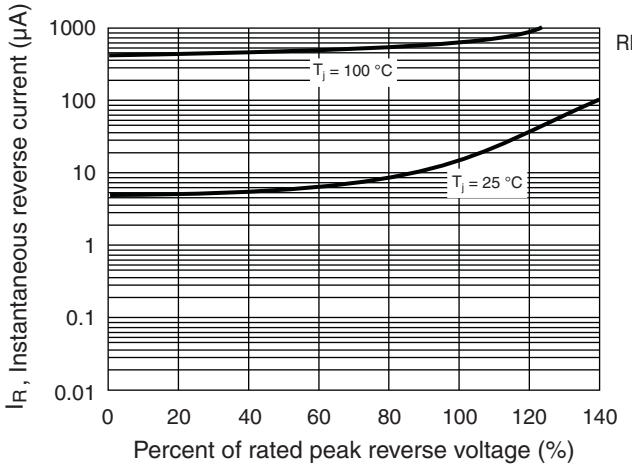
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



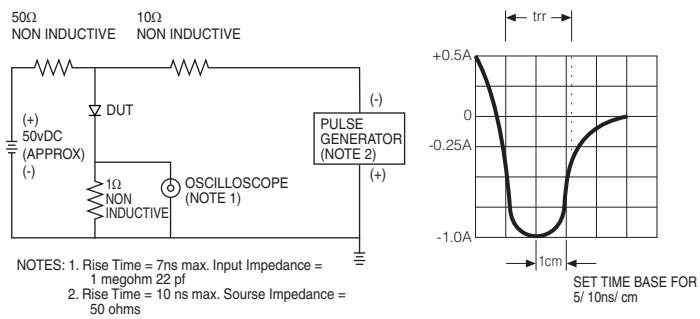
TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTICS



REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm 22 pf
2. Rise Time = 10 ns max. Sourse Impedance = 50 ohms