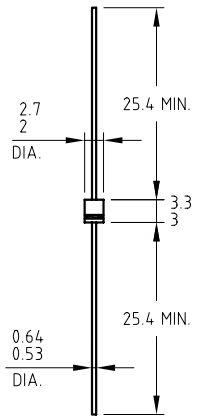
0.6 Amp. Glass Passivated Ultrafast Rectifiers

RoHS COMPLIANCE

DO-41 Mini



Dimensions in mm.

Voltage	**Current**
100 V to 200 V	0.6 A

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Ultrafast recovery time for high efficiency
- Excellent high temperature switching
- Glass passivated junction
- High temperature soldering guaranteed: 260 °C/10 seconds/9.5 mm lead lengths at 2.3 Kg tension

MECHANICAL DATA

- Cases: Void free molded plastic body over glass passivated chip junction
- Terminals: Pure tin plated, lead free, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode
- Mounting position: Any
- Weight: 0.181 g.

Maximum Ratings and Electrical Characteristics at 25 °C

		UG06B	UG06D
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	100	200
V_{RMS}	Maximum RMS Voltage (V)	70	140
V_{DC}	Maximum DC Blocking Voltage (V)	100	200
$I_{F(AV)}$	Maximum Average Forward Rectified Current 9.5mm Lead Length @ T_L = 75 °C	0.6 A	
I_{FSM}	Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method) @ T_L = 75°C	40 A	
T_{rr}	Maximum Reverse Recovery Time from I_F = 0.5A; I_R = 1A; I_{RR} = 0.25A	15 nS	
C_j	Typical Junction Capacitance at 1 MHz and reverse voltage of 4V_{DC}	9 pF	
T_j	Operating Temperature Range	-55 to +150 °C	
T_{stg}	Storage Temperature Range	-55 to +150 °C	

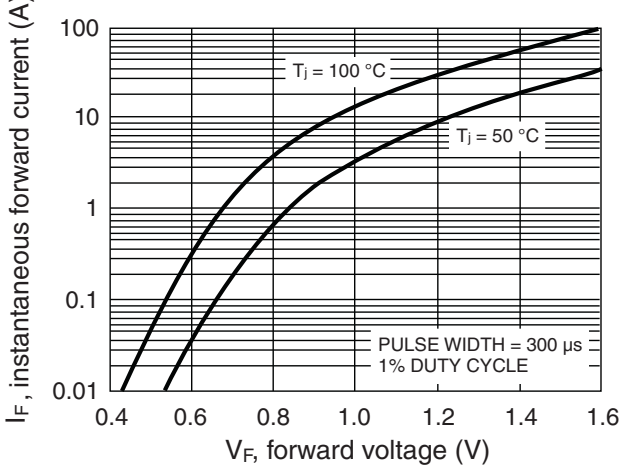
Electrical Characteristics at Tamb = 25 °C

V_F	Maximum Instantaneous Forward Voltage I_F = 0.6 A	0.95 V
I_R	Maximum DC Reverse Current @ Ta = 25 °C at Rated DC Blocking Voltage @ Ta =125°C	5 µA 150 µA
$R_{th\ (j-a)}$ $R_{th\ (j-l)}$	Typical Thermal Resistance (See note)	97 °C/W 28 °C/W

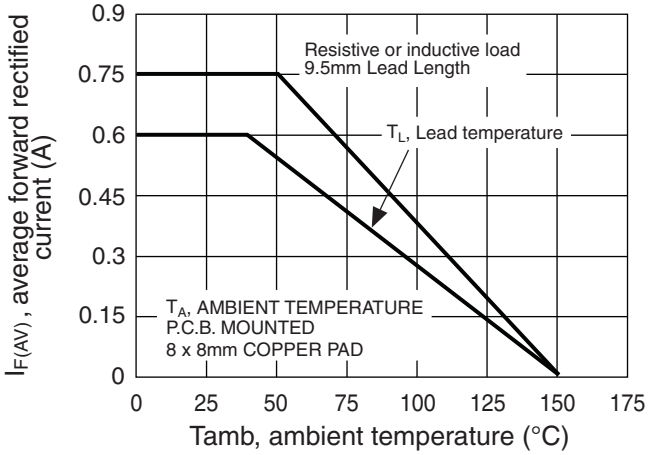
NOTE: Thermal Resistance from Junction to Ambient at 9.5mm Lead Lenght. Mounted on Cu-Pad size 5mm x 5mm on PCB.

Rating And Charasterictic Curves

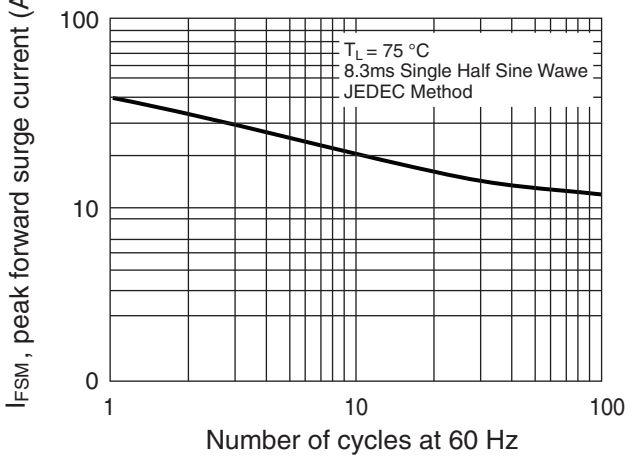
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC



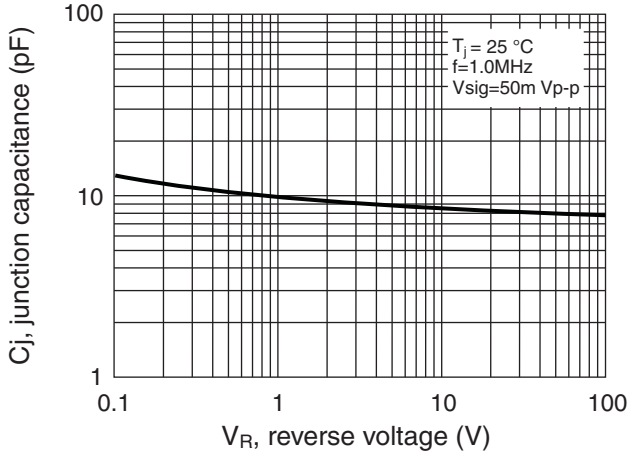
MAXIMUM FORWARD CURRENT DERATING CURVE



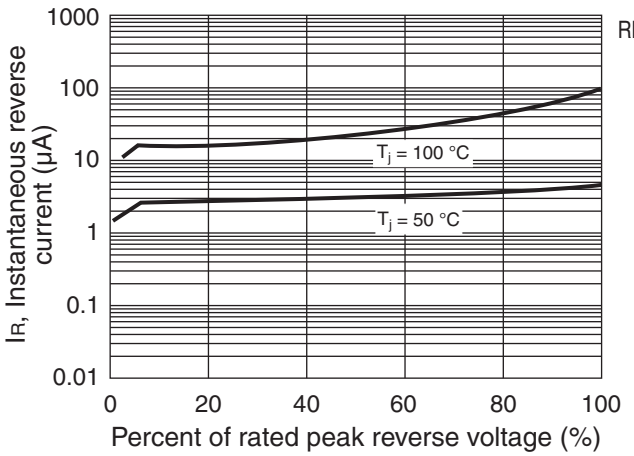
MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



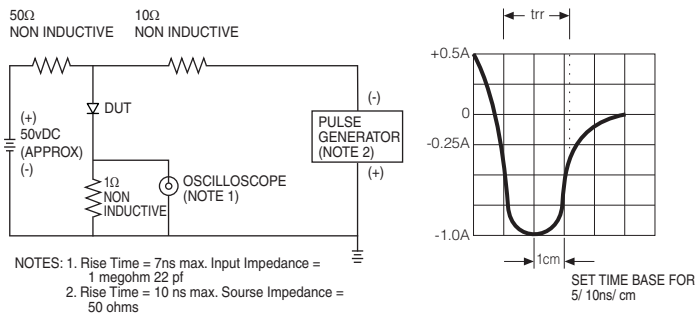
TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTIC



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