

UG06A - UG06D

0.6 AMP. Glass Passivated Super Fast Rectifiers

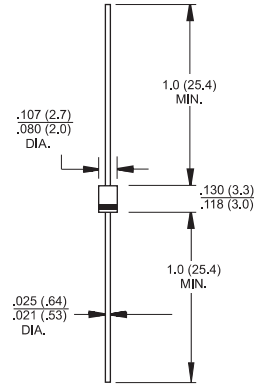
TS-1

Features

- ✧ 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/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) 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: 0.0064 ounce, 0,181 gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	Symbol	UG06A	UG06B	UG06C	UG06D	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ $T_L = 75^\circ C$	I_{AV}	0.6				A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) @ $T_L = 75^\circ C$	I_{FSM}	40				A
Maximum Instantaneous Forward Voltage @ 0.6A	V_F	0.95				V
Maximum DC Reverse Current @ $T_A = 25^\circ C$ at Rated DC Blocking Voltage @ $T_A = 125^\circ C$	I_R	5.0 150				μA μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	15				nS
Typical Junction Capacitance (Note 2)	C_j	9.0				pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	97 28				$^\circ C/W$
Operating Temperature Range T_J	T_J	-55 to +150				$^\circ C$
Storage Temperature Range T_{STG}	T_{STG}	-55 to +150				$^\circ C$

- Notes:
1. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$
 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.
 3. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) Lead Length.
Mounted on Cu-Pad size 0.2" x 0.2" (5mm x 5mm) on PCB.

RATINGS AND CHARACTERISTIC CURVES (UG06A THRU UG06D)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

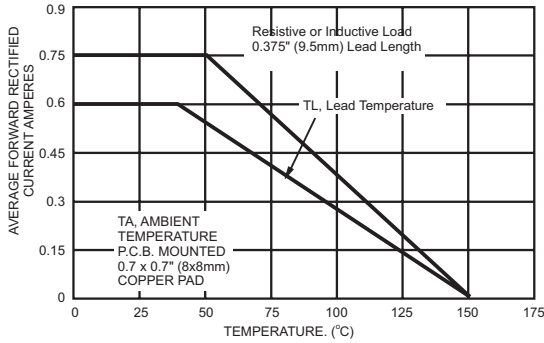


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

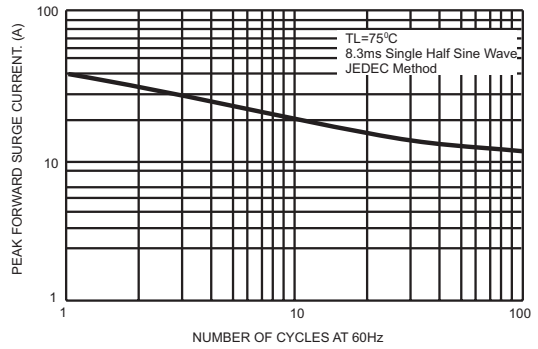


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

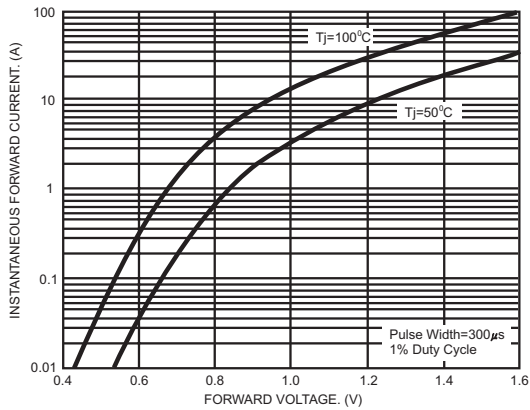


FIG.4- TYPICAL REVERSE CHARACTERISTICS

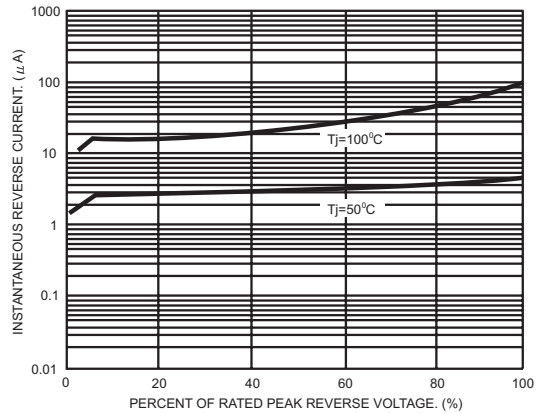


FIG.5- TYPICAL JUNCTION CAPACITANCE

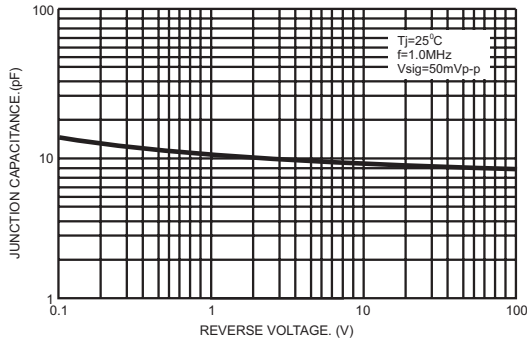


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

