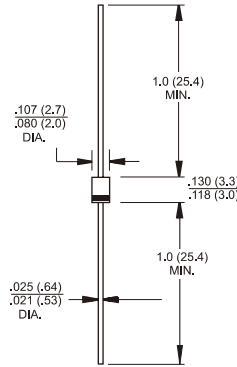


UG06A - UG06D

0.6 AMP. Glass Passivated Super Fast Rectifiers

TS-1



Dimensions in inches and (millimeters)

Marking Diagram



- UG06X = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

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
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

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 grams

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 _{bc}	50	100	150	200	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ T _L = 75 °C	I _{F(AV)}	0.6				A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) @ T _L = 75 °C	I _{FSM}	40				A
Maximum Instantaneous Forward Voltage @ 0.6A	V _F	0.95				V
Maximum DC Reverse Current at @ T _A =25 °C	I _R	5.0				uA
Rated DC Blocking Voltage (Note 1) @ T _A =125 °C		150				uA
Maximum Reverse Recovery Time (Note 4)	T _{rr}	15				nS
Typical Junction Capacitance (Note 2)	C _j	9.0				pF
Typical Thermal Resistance (Note 3)	R _{θJA} R _{θJL}	97 28				°C/W
Operating Temperature Range T _J	T _J	-55 to +150				°C
Storage Temperature Range T _{STG}	T _{STG}	-55 to +150				°C

- Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
 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.
 4. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

RATINGS AND CHARACTERISTIC CURVES (UG06A THRU UG06D)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

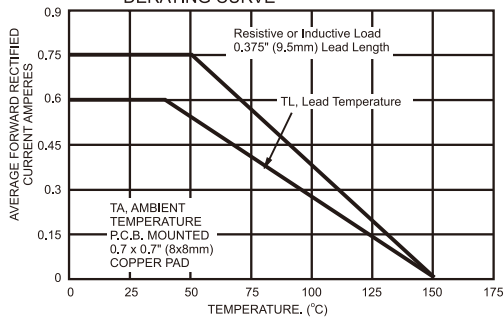


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

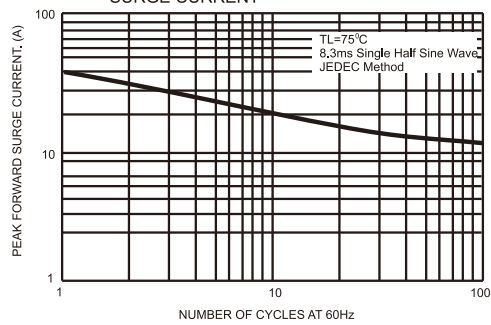


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

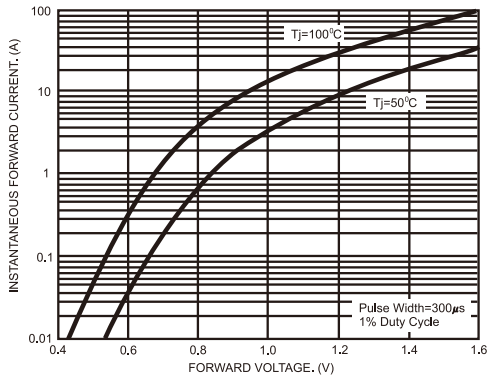


FIG.4- TYPICAL REVERSE CHARACTERISTICS

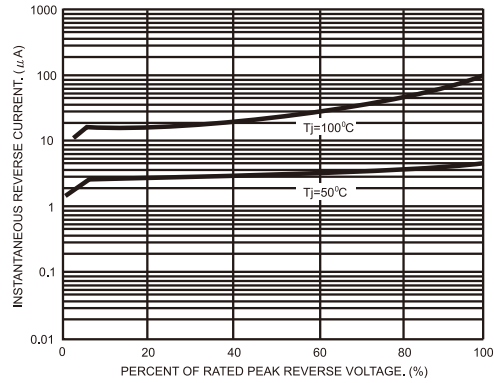


FIG.5- TYPICAL JUNCTION CAPACITANCE

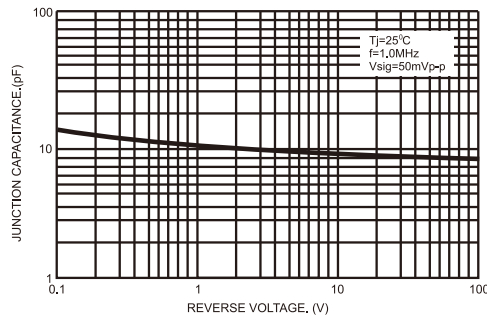


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

