

**UG2D**  
**2.0 AMPS. Glass Passivated Super Fast Rectifiers**  
**DO-15**

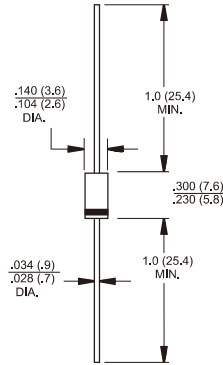


**Features**

- ✧ Plastic package has Underwrites 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/10seconds/.375", (9.5mm) lead lengths at 5lbs., (2.3kg) tension
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

**Mechanical Data**

- ✧ Case: DO-15 molded plastic
- ✧ Terminals: Pure tin plated leads, solderable per MIL-STD-750, Method 2026
- ✧ Polarity: Color band denotes cathode
- ✧ Mounting position: Any
- ✧ Weight: 0.33gram



Dimensions in inches and (millimeters)



- UG2D = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

**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	UG2D	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	V
Maximum RMS Voltage	$V_{RMS}$	140	V
Maximum DC Blocking Voltage	$V_{DC}$	200	V
Maximum Average Forward Rectified Current (FIG. 1)	$I_{F(AV)}$	2	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	80	A
Maximum Instantaneous Forward Voltage @ 2.0A / $T_A=25^{\circ}C$ @ 2.0A / $T_A=125^{\circ}C$	$V_F$	0.95 0.80	V
Maximum DC Reverse Current at Rated DC Blocking Voltage(Note 1) @ $T_A=25^{\circ}C$ @ $T_A=125^{\circ}C$	$I_R$	5 200	$\mu A$
Typical Junction Capacitance ( Note 2)	$C_j$	35	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	45	$^{\circ}C/W$
Maximum Reverse Recovery Time (Note 4)	$T_{rr}$	15	nS
Typical Reverse Recovery Time (Note 5)	$T_{rr}$	25	nS
Operating Temperature Range	$T_j$	-55 to + 150	$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to + 150	$^{\circ}C$

- Note: 1. Pulse Test with PW=300 usec, 1% Duty Cycle  
 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.  
 3. Mount on Cu-Pad Size 10mm × 10mm on P.C.B.  
 4. Reverse Recovery Test Condition:  $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$   
 5. Reverse Recovery Test Condition:  $I_F=2.0A, V_R=30V, dI/dt=50A/us, I_{rr}=10\%$  IRM for Measurement of trr

## RATINGS AND CHARACTERISTIC CURVES (UG2D)

FIG.1 Maximum Forward Current Derating Curve

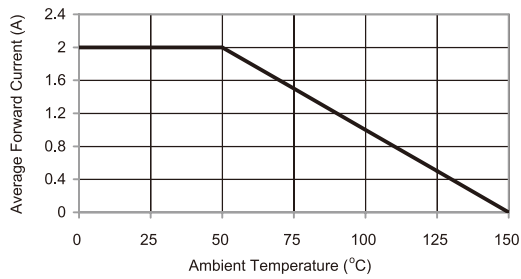


FIG. 2 Maximum Forward Surge Current

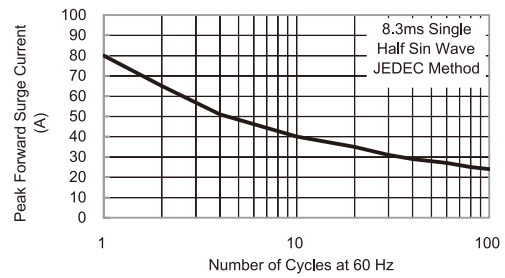


FIG. 3 Typical Forward Characteristics

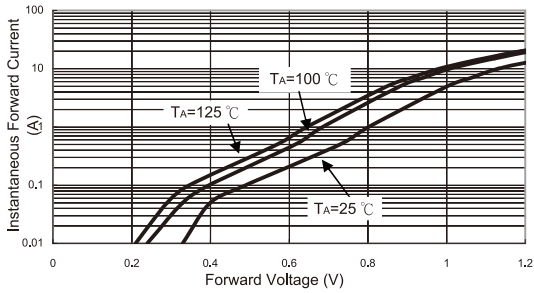


FIG. 4 Typical Reverse Characteristics

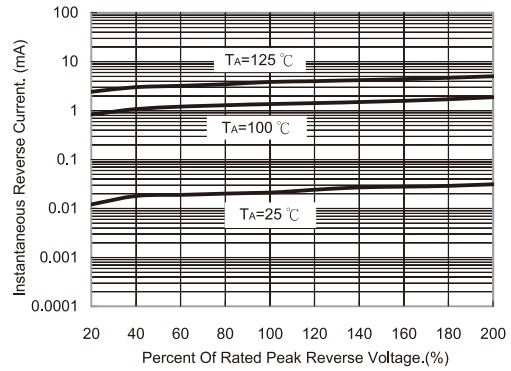


FIG. 5 Typical Junction Capacitance

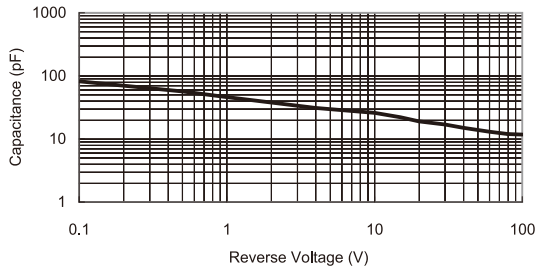
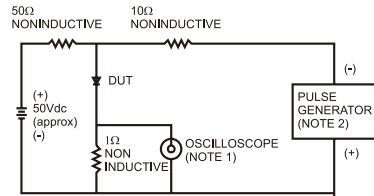


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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

