

UG2D

2.0 AMPS. Glass Passivated Super Fast Rectifiers

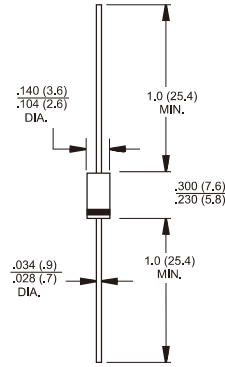
DO-15

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	uA
Typical Junction Capacitance (Note 2)	C_j	35	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	45	°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	°C
Storage Temperature Range	T_{STG}	-55 to + 150	°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 t_{rr}

RATINGS AND CHARACTERISTIC CURVES (UG2D)

FIG.1 Maximum Forward Current Derating Curve

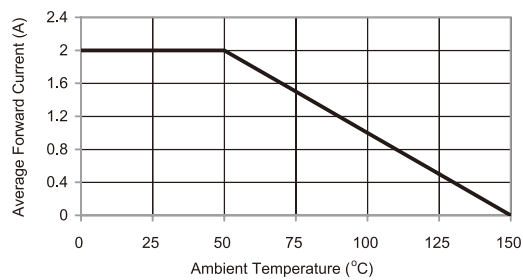


FIG. 2 Maximum Forward Surge Current

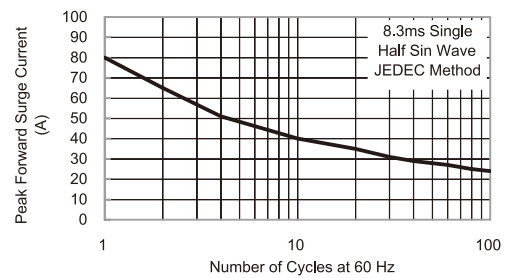


FIG. 3 Typical Forward Characteristics

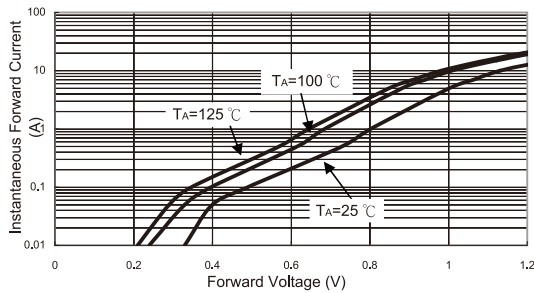


FIG. 4 Typical Reverse Characteristics

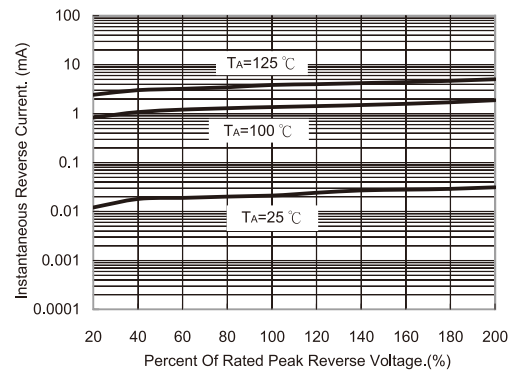


FIG. 5 Typical Junction Capacitance

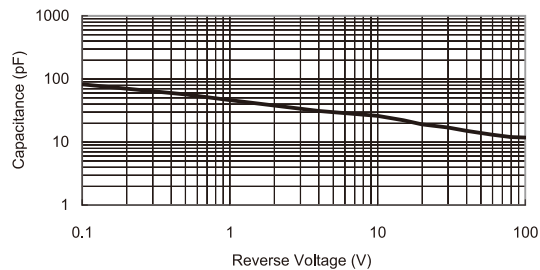
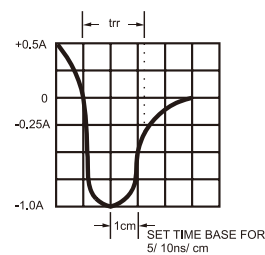
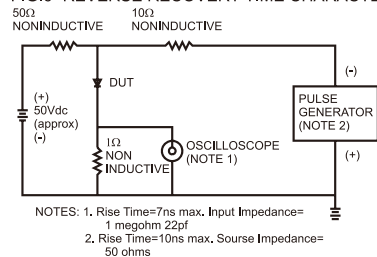


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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