

UGF1004G - UGF1006G
10.0AMPS. Isolated Glass Passivated Super Fast Rectifiers
ITO-220AB

Features

- High efficiency, low VF
- High current capability
- High reliability
- High surge current capability
- Low power loss
- For use in low voltage, high frequency inverter, Freewheeling, and polarity protection application
- Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- Case: ITO-220AB
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: As marked
- High temperature soldering guaranteed: 260°C/10 seconds.
- Weight: 2.24 grams

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

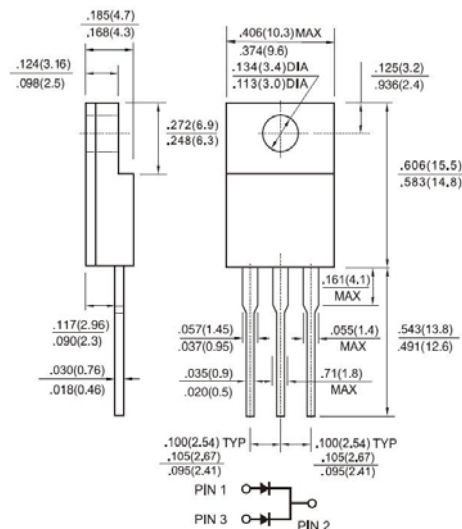
Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	UGF1004G	UGF1005G	UGF1006G	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	200	300	400	V
Maximum RMS Voltage	V _{RMS}	140	210	280	V
Maximum DC Blocking Voltage	V _{DC}	200	300	400	V
Maximum Average Forward Rectified Current	I _{F(AV)}	10			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	70			A
Maximum Instantaneous Forward Voltage (Note 1) @ 5 A / T _A =25℃	V _F	0.95	1.25		V
Maximum DC Reverse Current at Rated T _A =25 ℃ DC Blocking Voltage T _A =125 ℃	I _R	10 100			uA
Maximum Reverse Recovery Time (Note 2)	T _{rr}	25			nS
Typical Thermal Resistance	R _{θJC}	6			°C/W
Operating Temperature Range	T _J	- 55 to + 175			°C
Storage Temperature Range	T _{STG}	- 55 to + 175			°C

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$



Dimensions in inches and (millimeters)

Marking Diagram



- P/N = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

RATINGS AND CHARACTERISTIC CURVES (UGF1004G THRU UGF1006G)

FIG.1 FORWARD CURRENT DERATING CURVE

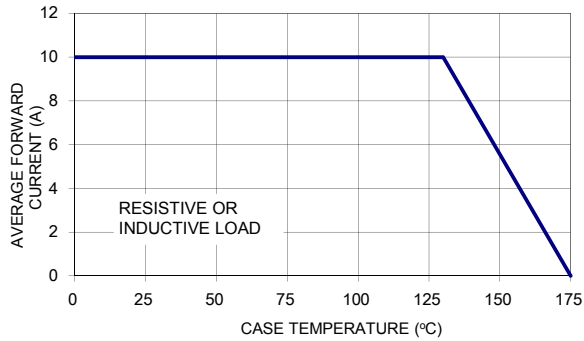


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

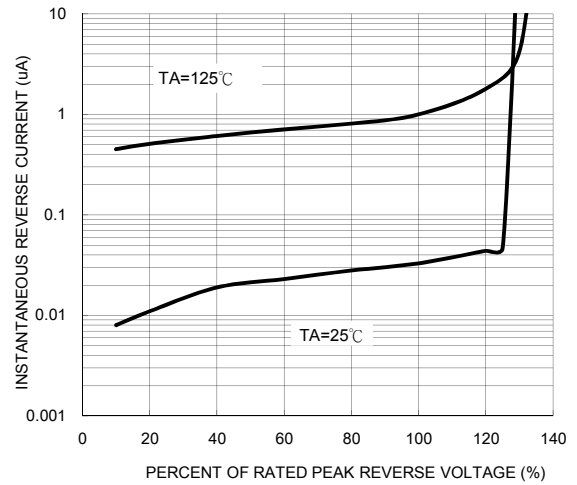


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

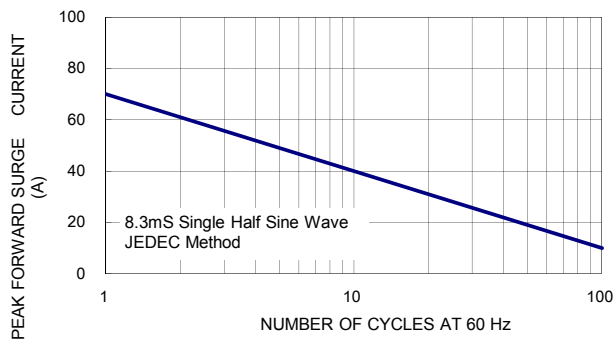


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

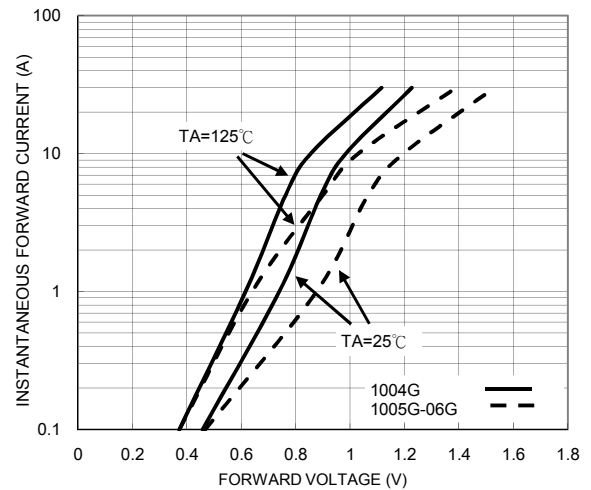


FIG. 5 TYPICAL JUNCTION CAPACITANCE

