Pb Free Plating Product

UGF1004G thru UGF1008G

10 Ampere Insulated Common Cathode Ultra Fast Recovery Half Bridge Rectifiers

Features

- ✶ Latest GPP technology with ultra fast recovery time
- ✶ Low forward voltage drop
- ✶ High current capability
- ✶ Low reverse leakage current
- ✶ High surge current capability

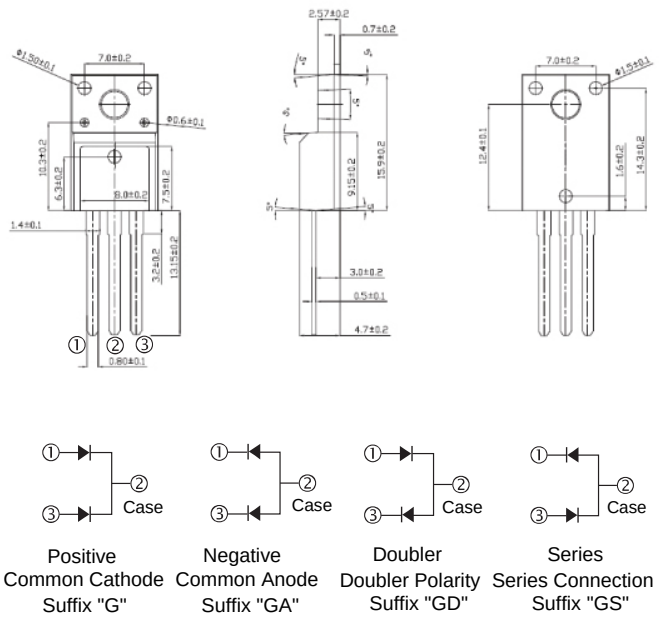
Application

- ✶ Automotive Inverters and Solar Inverters
- ✶ Plating Power Supply,SMPS and UPS
- ✶ Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- ✶ Case: Fully Insulated TO-220FP FullPak Plastic
- ✶ Epoxy: UL 94V-0 rate flame retardant
- ✶ Terminals: Solderable per MIL-STD-202 method 208
- ✶ Polarity: As marked on diode body
- ✶ Mounting position: Any
- ✶ Weight: 2.0 gram approximately

ITO-220AB Unit:mm



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)							
PARAMETER	SYMBOL	UGF1004G	UGF1005G	UGF1006G	UGF1007G	UGF1008G	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	200	300	400	500	600	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	I_{FSM}	70					A
Maximum instantaneous forward voltage (Note 2) I_F= 5 A	V_F	0.95	1.25		1.70		V
Maximum reverse current @ rated VR T_J=25 ℃ / T_J=125 ℃	I_R	10 / 100					μA
Maximum reverse recovery time (Note 2)	Trr	20			25		ns
Typical thermal resistance	$R_{\theta JC}$	6.0					℃/W
Operating junction temperature range	T_J	- 55 to +175			- 55 to +150		℃
Storage temperature range	T_{STG}	- 55 to +175			- 55 to +150		℃

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

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

RATINGS AND CHARACTERISTICS CURVES

(TA=25℃ unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

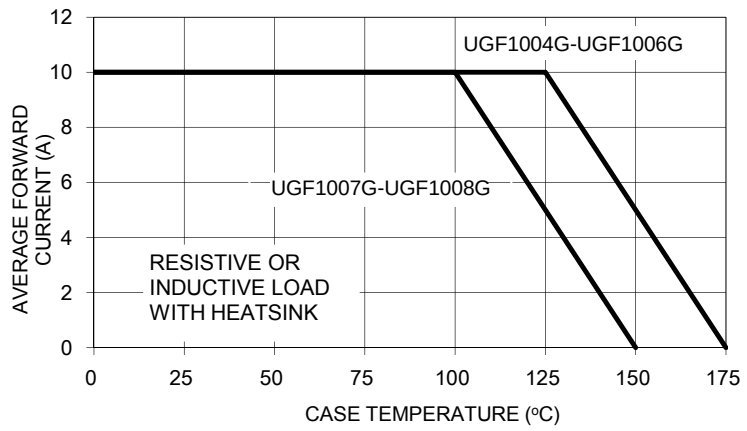


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

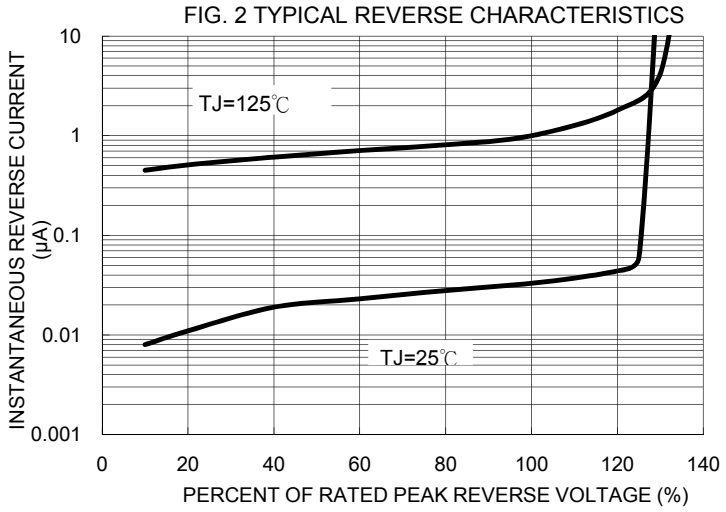


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

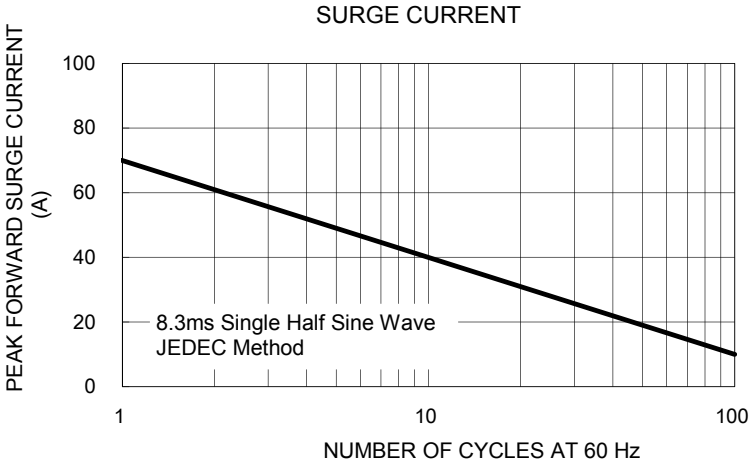


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

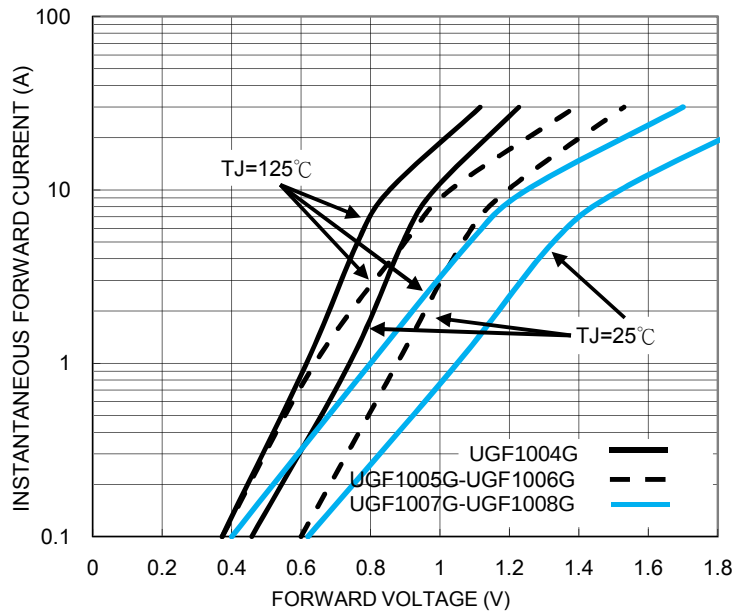


FIG. 5 TYPICAL JUNCTION CAPACITANCE