

Pb Free Plating Product

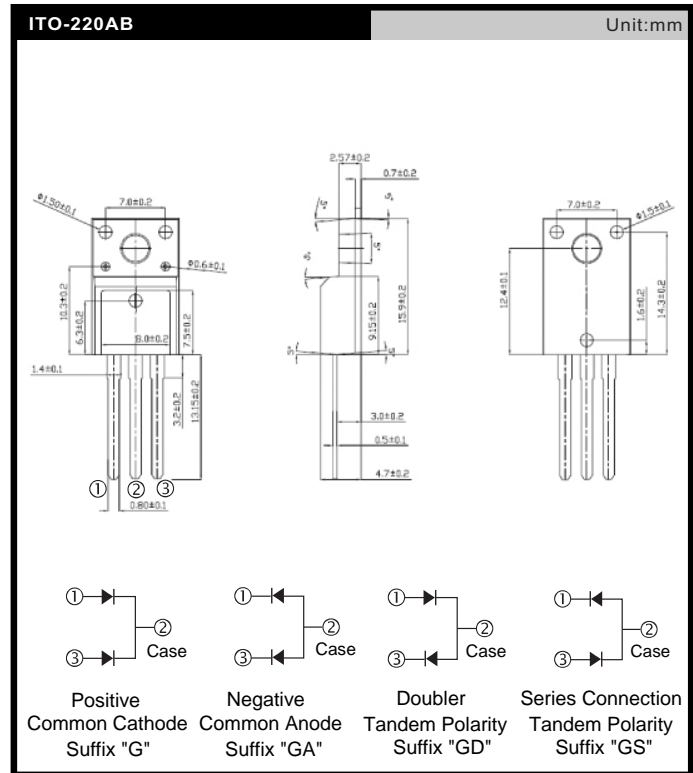
UGF1004GD thru UGF1008GD



10 Ampere Insulated Tandem Polarity 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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C 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°C unless otherwise noted)							
PARAMETER	SYMBOL	UGF1004GD	UGF1005GD	UGF1006GD	UGF1007GD	UGF1008GD	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 °C T _J =125 °C	I _R	10 100					μA
Maximum reverse recovery time (Note 2)	T _{rr}	20			25		ns
Typical thermal resistance	R _{θJC}	6.0					°C/W
Operating junction temperature range	T _J	- 55 to +175			- 55 to +150		°C
Storage temperature range	T _{STG}	- 55 to +175			- 55 to +150		°C

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°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

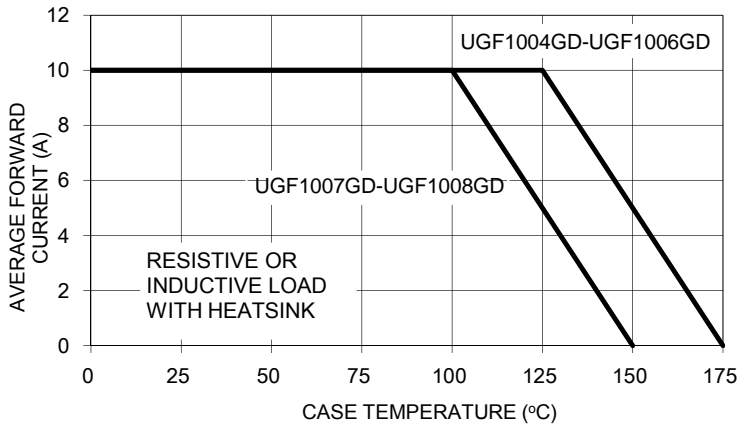


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

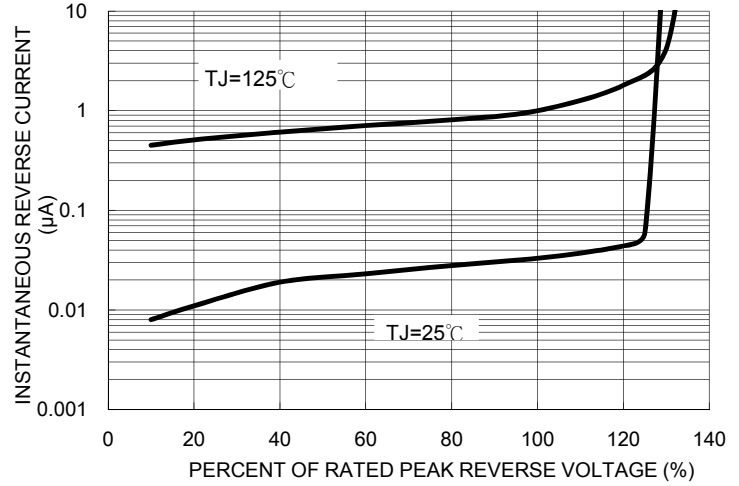


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

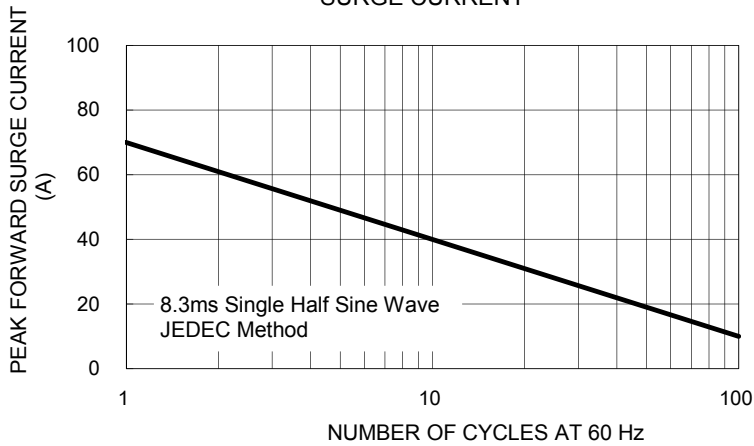


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

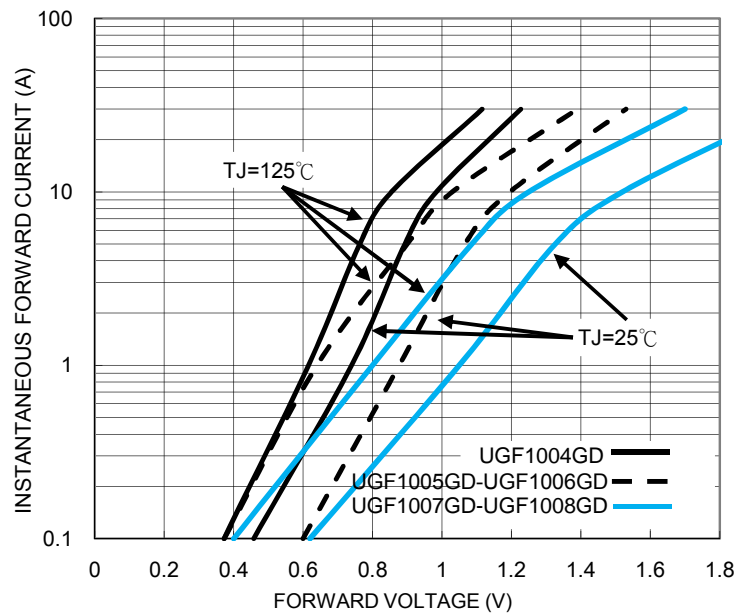


FIG. 5 TYPICAL JUNCTION CAPACITANCE

