

Pb Free Plating Product

UGF1004GS/UGF1005GS/UGF1006GS/UGF1007GS/UGF1008GS



10.0 Amperes Insulated Package Dual Series Connection Ultra Fast Recovery Rectifiers

Features

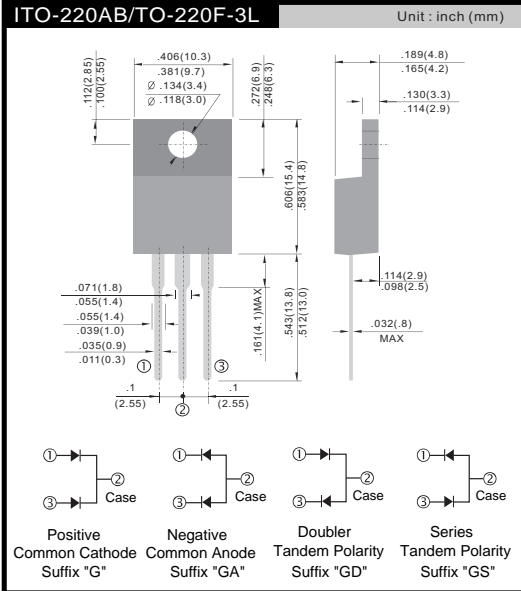
- ★ Ultra fast soft recovery switching for high efficiency
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

Application

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

Mechanical Data

- ★ Case: ITO-220AB full plastic isolated package
- ★ 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: 1.75 gram approximately



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	UGF1004GS	UGF1005GS	UGF1006GS	UGF1007GS	UGF1008GS	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 1) I _F = 5 A	V _F	0.95	1.25		1.70		V
Maximum reverse current @ rated V _R 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					°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

($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

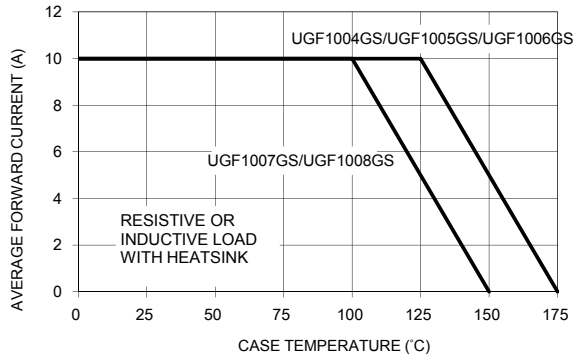


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

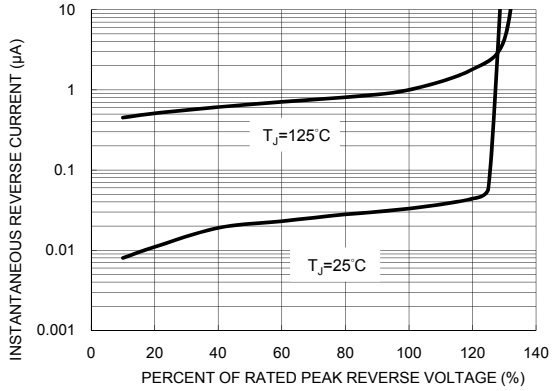


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

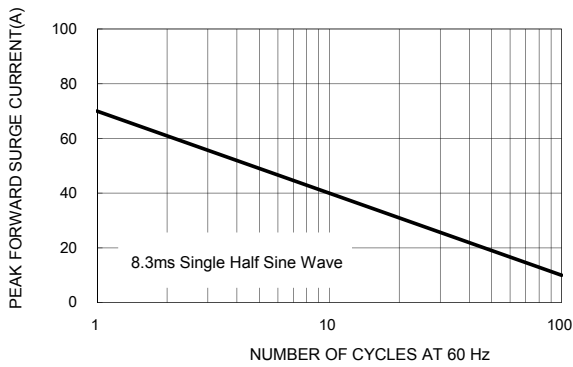


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

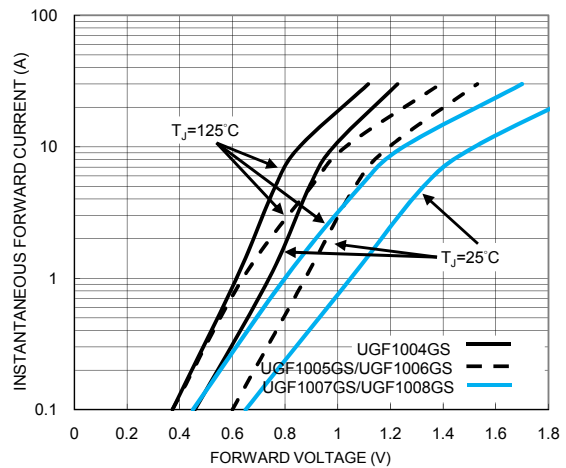


FIG. 5 TYPICAL JUNCTION CAPACITANCE

