

### Features

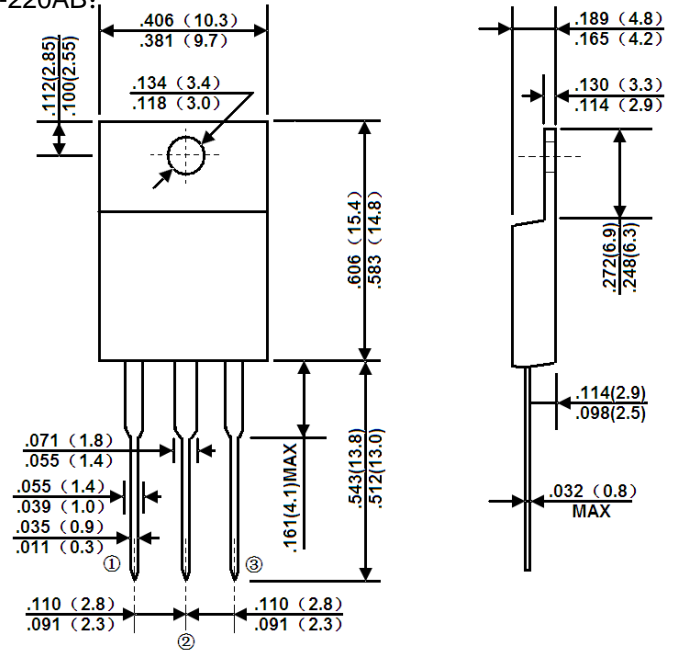
- \* High efficiency, low VF
- \* High current capability
- \* High Reliability
- \* High surge current capability
- \* Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC



**RoHS**  
COMPLIANT

### Package Outline Dimensions in inches (millimeters)

ITO-220AB:



### Mechanical Data

- \* Case: ITO-220AB
- \* Molding compound, UL flammability classification rating 94V-0
- \* Terminal: Matte tin plated leads, solderable per JESD 22-B102 Meet JESD 201 class 1A whisker test
- \* Polarity: As marked
- \* Mounting torque: 5 in-lbs maximum

### 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	UGF 1004G	UGF 1005G	UGF 1006G	UGF 1007G	UGF 1008G	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 D.C Blocking Voltage	$V_{DC}$	200	300	400	500	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	70					A
Maximum Instantaneous Forward Voltage (Note 1) @ 5 A	$V_F$	0.95	1.25		1.70		V
Maximum D.C Reverse Current @ $T_J=25^{\circ}C$ at Rated D.C Blocking Voltage @ $T_J=125^{\circ}C$	$I_R$	10 100					$\mu A$
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	20			25		nS
Typical Thermal Resistance	$R_{\theta JC}$	6.0					$^{\circ}C/W$
Operating and Storage Temperature Range	$T_J/T_{STG}$	-55 to +175			-55 to +150		$^{\circ}C$

Note:1、 Pulse Test with PW=300 usec, 1% Duty Cycle 2、 Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $IRR=0.25A$

### Ratings and Characteristic Curves

FIG. 1 FORWARD CURRENT DERATING CURVE

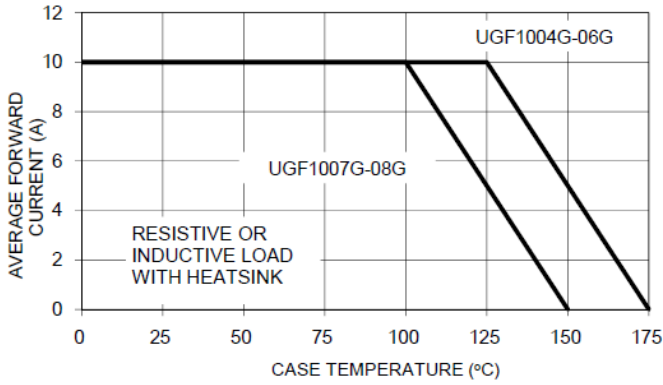


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

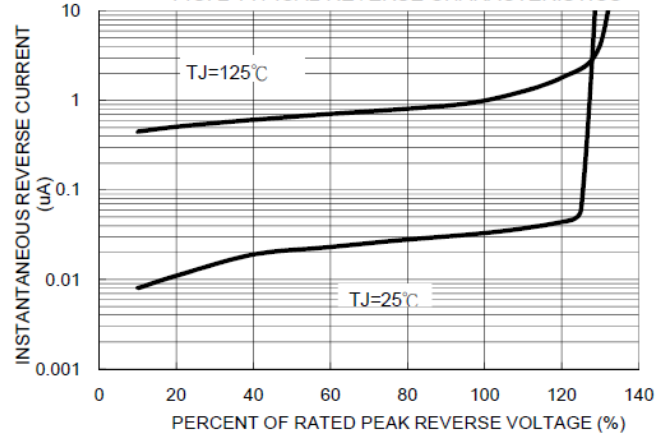


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

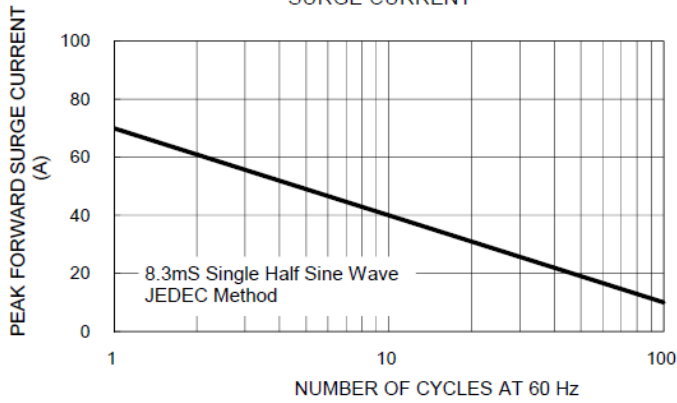


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

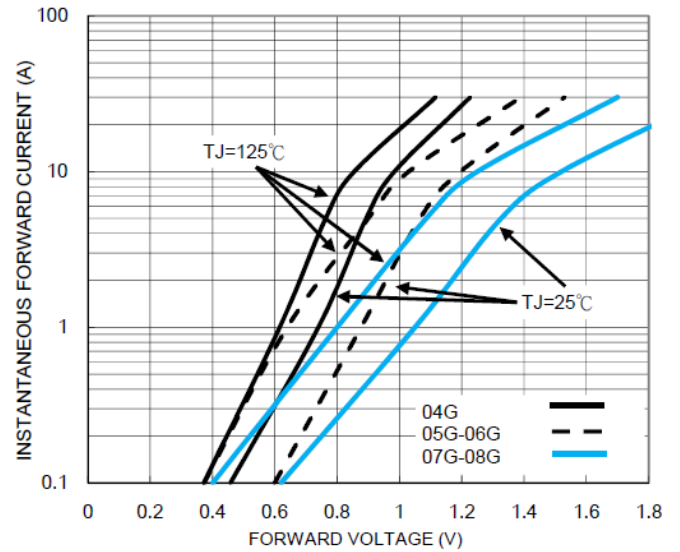
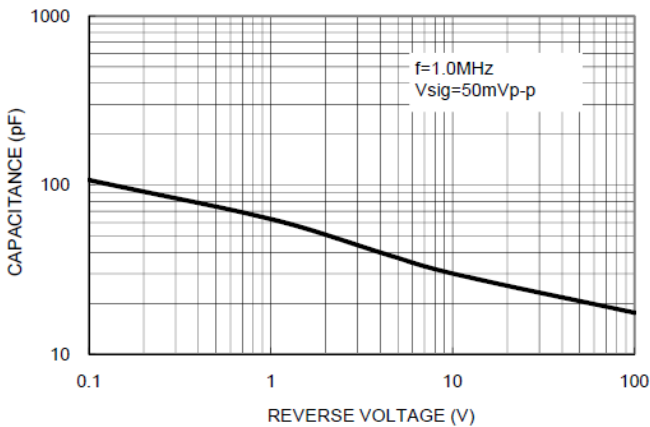


FIG. 5 TYPICAL JUNCTION CAPACITANCE





# UGF1004G THRU UGF1008G

*Ultra Fast Rectifiers*

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## Ordering Information

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Part No.	Package	Packing
UGF1004G~UGF1008G	ITO-220AB	50pcs/Tube