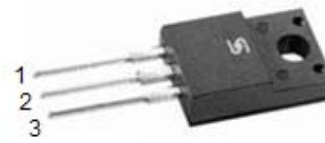


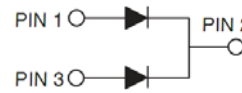
## Isolated Ultra Fast Rectifiers

### FEATURES

- High efficiency, low VF
- High current capability
- High reliability
- High surge current capability
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



**ITO-220AB**



### DESCRIPTION

- UGF200xG series are ideal devices for free wheeling function in switching mode power supply and high frequency DC/DC converters
- UGF200xG series: their low stored charge and ultrafast soft recovery minimizes ringing and electrical noise in power switching circuits reducing power loss

### MECHANICAL DATA

**Case:** ITO-220AB

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free

**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

**Polarity:** As marked

**Mounting torque:** 5 in-lbs maximum

**Weight:** 1.7g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)								
PARAMETER	SYMBOL	UGF 2004G	UGF 2005G	UGF 2006G	UGF 2007G	UGF 2008G	UNIT	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	200	300	400	500	600	V	
Maximum RMS voltage	V <sub>RMS</sub>	140	210	280	350	420	V	
Maximum DC blocking voltage	V <sub>DC</sub>	200	300	400	500	600	V	
Maximum average forward rectified current	I <sub>F(AV)</sub>	20						A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150						A
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 10 A	V <sub>F</sub>	0.95	1.25		1.70		V	
Maximum reverse current @ rated VR T <sub>J</sub> =25 °C T <sub>J</sub> =125 °C	I <sub>R</sub>	5 100						μA
Maximum reverse recovery time (Note 2)	T <sub>rr</sub>	20			25		ns	
Typical thermal resistance	R <sub>θJC</sub>	2						°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 to +175			- 55 to +150		°C	
Storage temperature range	T <sub>STG</sub>	- 55 to +175			- 55 to +150		°C	

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

Note 2: Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

ORDERING INFORMATION				
PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
UGF200xG (Note 1)	C0	Suffix "G"	ITO-220AB	50 / Tube

Note 1: "xx" defines voltage from 200V (UGF2004G) to 600V (UGF2008G)

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
UGF2004G C0	UGF2004G	C0		
UGF2004G C0G	UGF2004G	C0	G	Green compound

**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

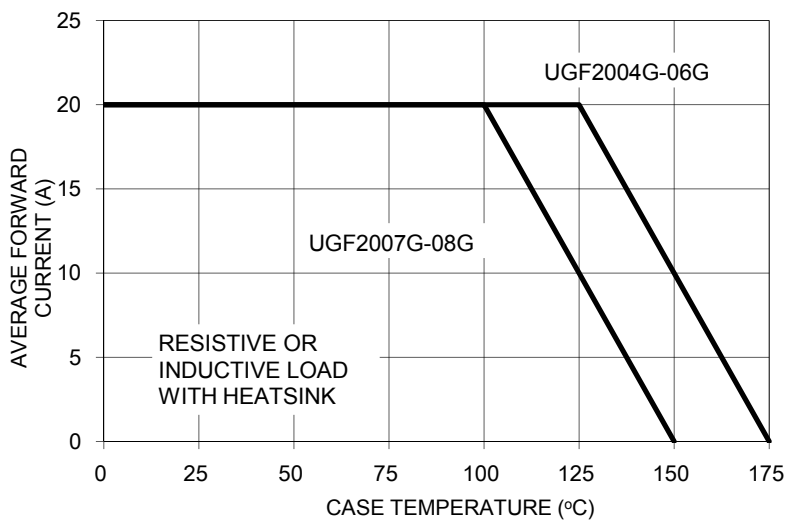


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

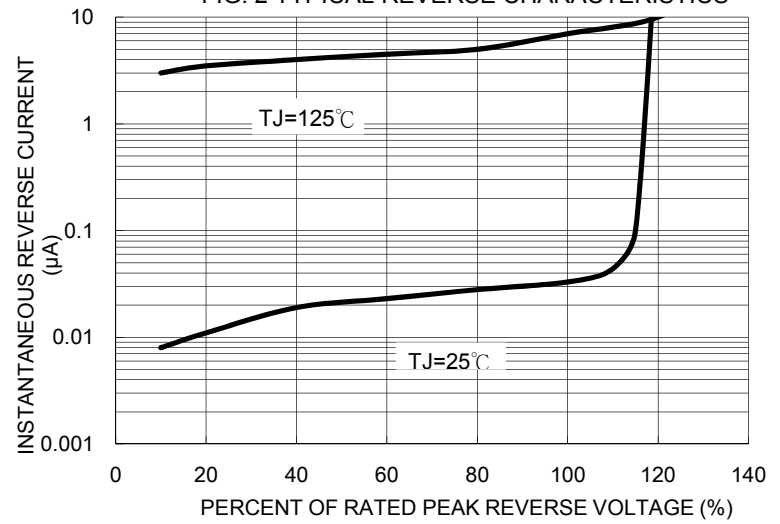


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

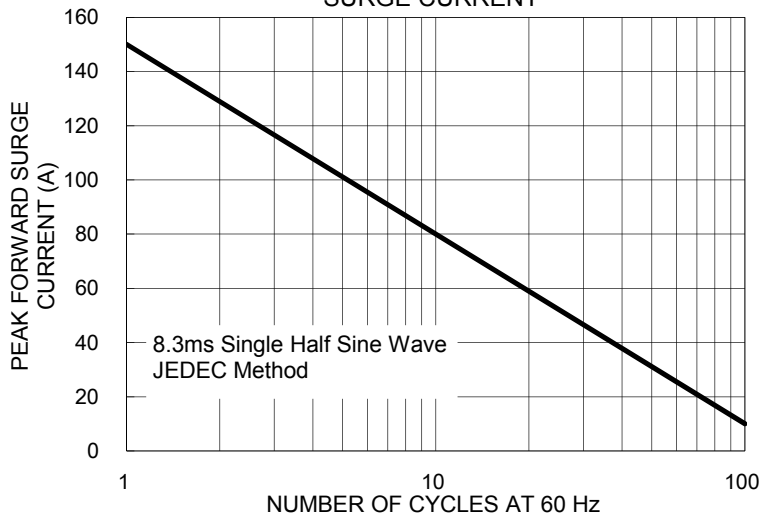


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

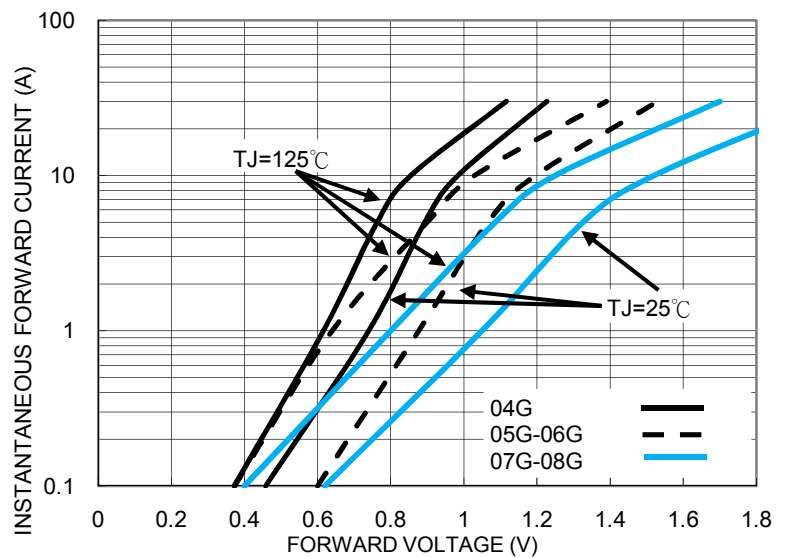
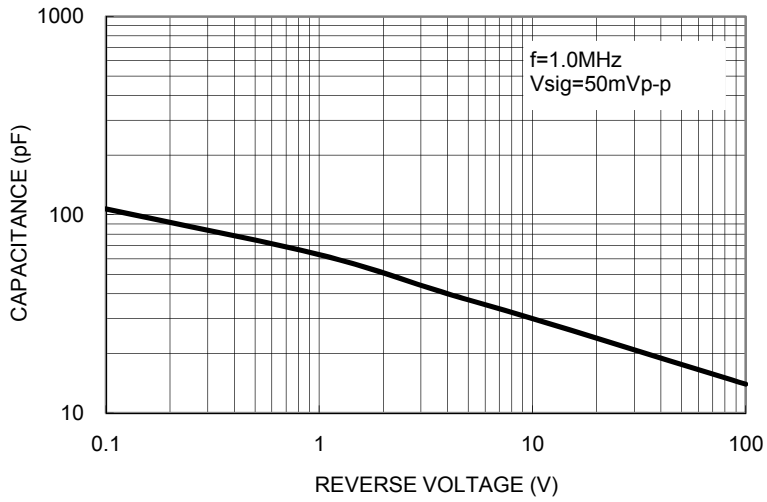
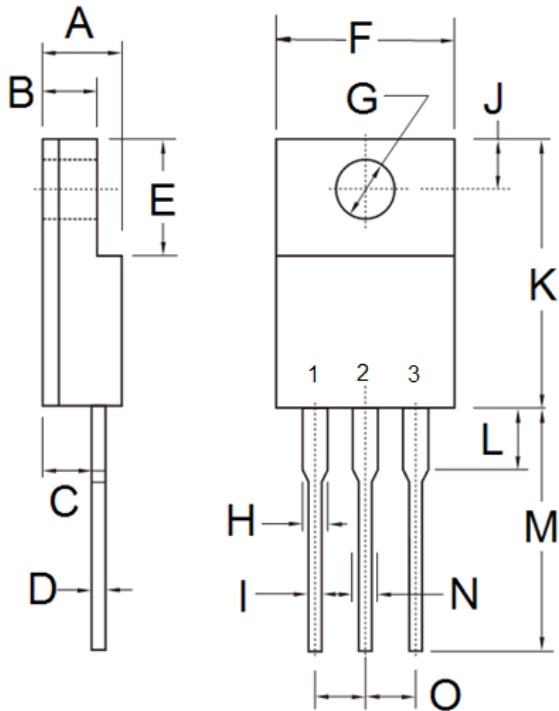


FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.30	4.70	0.169	0.185
B	2.50	3.16	0.098	0.124
C	2.30	2.96	0.091	0.117
D	0.46	0.76	0.018	0.030
E	6.30	6.90	0.248	0.272
F	9.60	10.30	0.378	0.406
G	3.00	3.40	0.118	0.134
H	0.95	1.45	0.037	0.057
I	0.50	0.90	0.020	0.035
J	2.40	3.20	0.094	0.126
K	14.80	15.50	0.583	0.610
L	-	4.10	-	0.161
M	12.60	13.80	0.496	0.543
N	-	1.80	-	0.071
O	2.41	2.67	0.095	0.105

MARKING DIAGRAM



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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