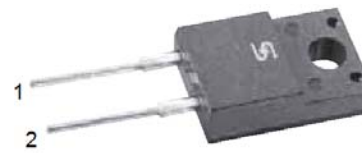


## Isolated High Voltage Ultrafast Rectifiers

### FEATURES

- UL Recognized File # E-326243
- High forward surge capability
- High reliability
- Ultra fast recovery time
- Low power loss
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



### MECHANICAL DATA

**Case :** ITO-220AC

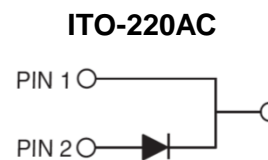
Molding compound, UL flammability classification rating 94V-0  
Base P/N with suffix "G" on packing code - halogen-free, RoHS compliant

**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

**Weight :** 1.7 gram (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)				
PARAMETER	SYMBOL	UGF10G	UGF10J	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	400	600	V
Maximum RMS voltage	V <sub>RMS</sub>	280	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	400	600	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	10		A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	90		A
Maximum instantaneous forward voltage (Note 1) IF=10A	V <sub>F</sub>	1.25	2.00	V
Maximum reverse current @ Rated V <sub>R</sub> T <sub>J</sub> =25 °C T <sub>J</sub> =125 °C	I <sub>R</sub>	5		μA
		100	200	
Maximum reverse recovery time (Note 2)	T <sub>rr</sub>	25		nS
Typical thermal resistance (Note 3)	R <sub>θJC</sub>	5		°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 usec, 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

Note 3: Mount on Heatsink size of 4" x 6" x 0.25" Al-plate

ORDERING INFORMATION				
PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
UGF10x (Note 1)	C0	Suffix "G"	ITO-220AC	50 / Tube

Note 1: "x" defines voltage from 400V (UGF10G) to 600V (UGF10J)

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
UGF10G C0	UGF10G	C0		
UGF10G C0G	UGF10G	C0	G	Green compound

**RATINGS AND CHARACTERISTICS CURVES**

(TA=25°C unless otherwise noted)

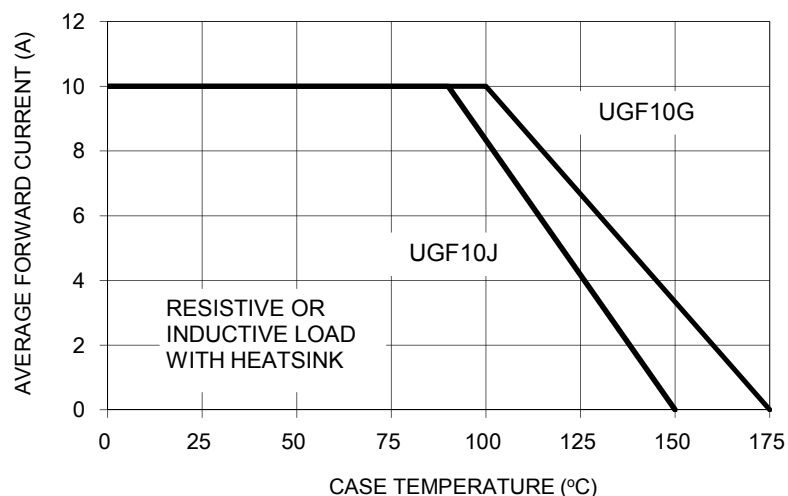
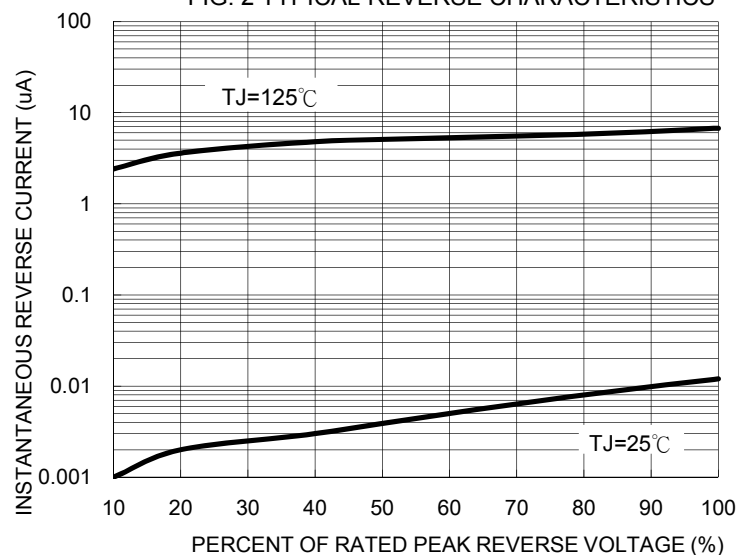
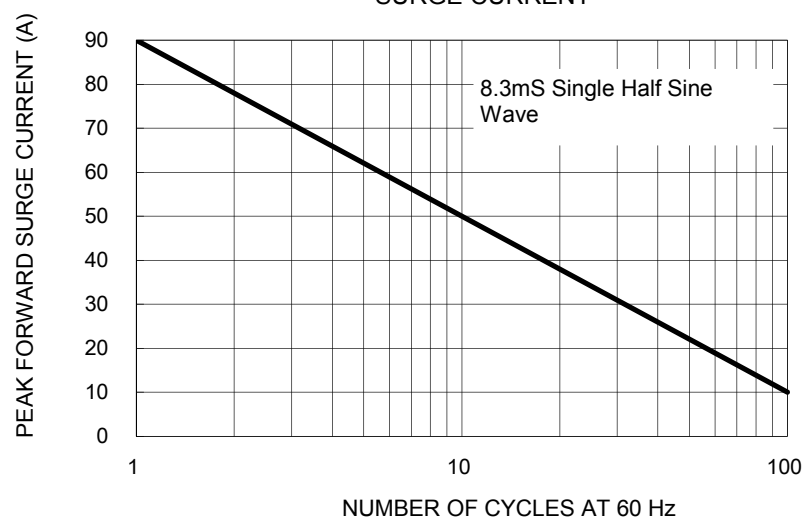
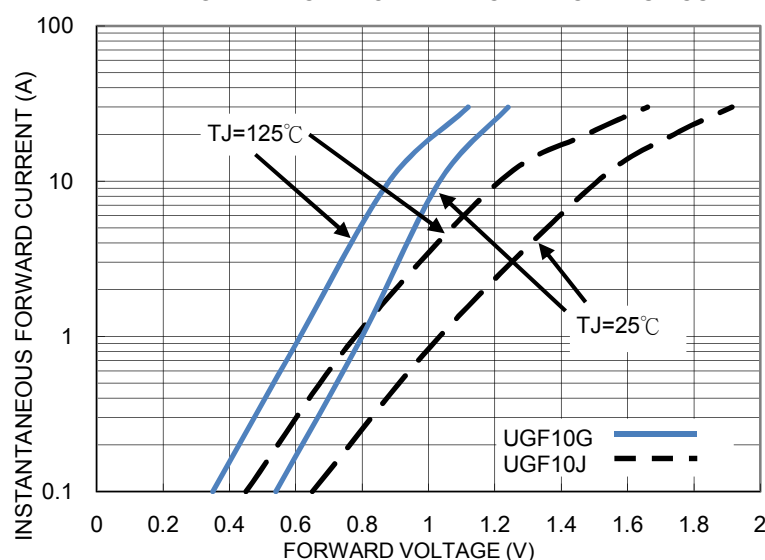
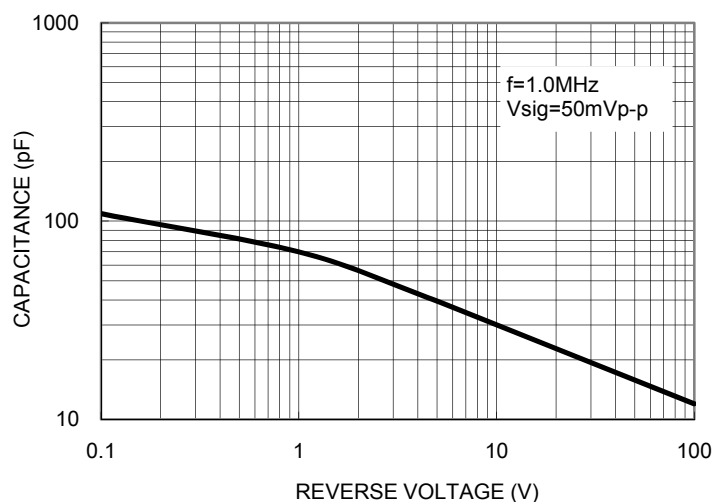
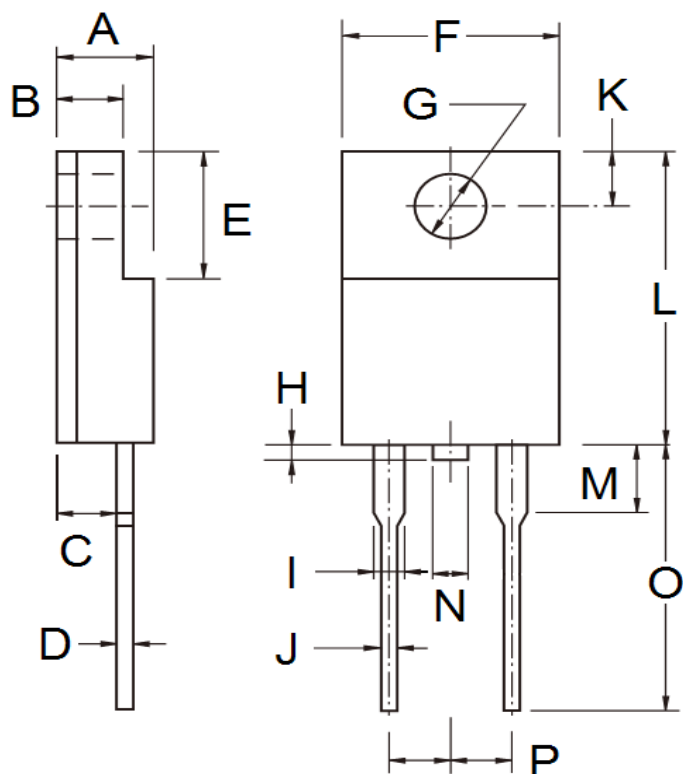
**FIG.1 FORWARD CURRENT DERATING CURVE**

**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	3.10	0.098	0.122
C	2.30	2.90	0.091	0.114
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	0.00	1.60	0.000	0.063
I	0.95	1.45	0.037	0.057
J	0.50	0.90	0.020	0.035
K	2.40	3.20	0.094	0.126
L	14.80	15.50	0.583	0.610
M	-	4.10	-	0.161
N	-	1.80	-	0.071
O	12.60	13.80	0.496	0.543
P	4.95	5.20	0.195	0.205

MARKING DIAGRAM



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