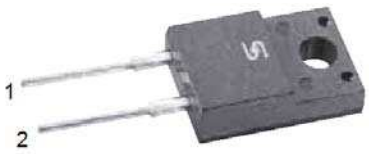
Isolated High Voltage Ultrafast Rectifiers

FEATURES

- High forward surge capability
- High reliability
- Ultra fast recovery time
- Low power loss
- 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



Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

Case: ITO-220AC

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

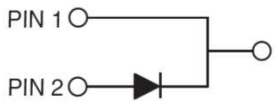
Meet JESD 201 class 1A whisker test

Polarity: As marked

Mounting torque: 5 in-lbs maximum

Weight: 1.7g (approximately)

ITO-220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)			
PARAMETER	**SYMBOL**	**UGF5J**	**UNIT**
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum RMS voltage	V_{RMS}	420	V
Maximum DC blocking voltage	V_{DC}	600	V
Maximum average forward rectified current	$I_{F(AV)}$	5	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	65	A
Maximum instantaneous forward voltage (Note 1) I_F= 5 A	V_F	3.00	V
Maximum reverse current @ Rated V_R T_J=25 ℃	I_R	30	μA
T_J=125 ℃		200	
Maximum reverse recovery time (Note 2)	Trr	25	ns
Typical thermal resistance	$R_{\theta JC}$	5.5	^{O}C/W
Operating junction temperature range	T_J	- 55 to +150	^{O}C
Storage temperature range	T_{STG}	- 55 to +150	^{O}C

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

Note 2: Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

ORDERING INFORMATION				
PART NO.	**PACKING CODE**	**GREEN COMPOUND CODE**	**PACKAGE**	**PACKING**
UGF5J	C0	Suffix "G"	ITO-220AC	50 / Tube

EXAMPLE				
PREFERRED P/N	**PART NO.**	**PACKING CODE**	**GREEN COMPOUND CODE**	**DESCRIPTION**
UGF5J C0	UGF5J	C0		
UGF5J C0G	UGF5J	C0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(TA=25℃ unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

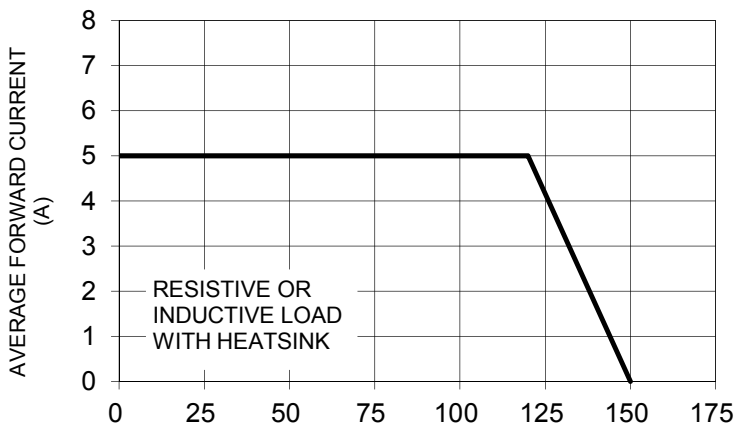


FIG. 2 MAXIMUM FORWARD SIRGE CURRENT

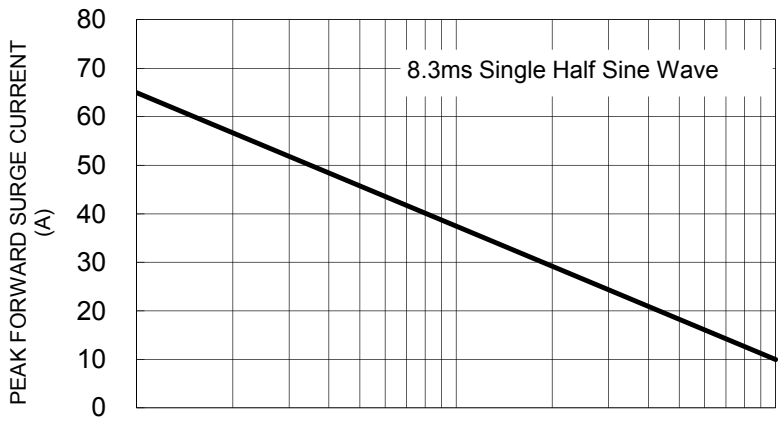


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

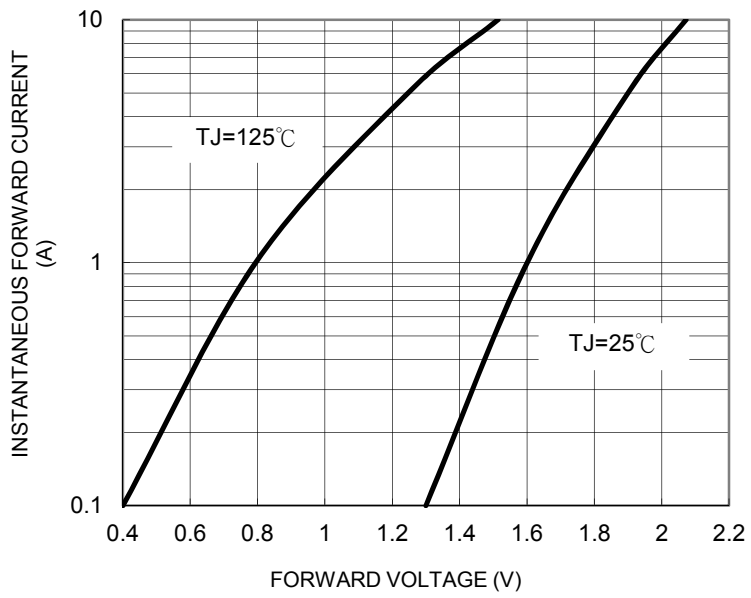


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

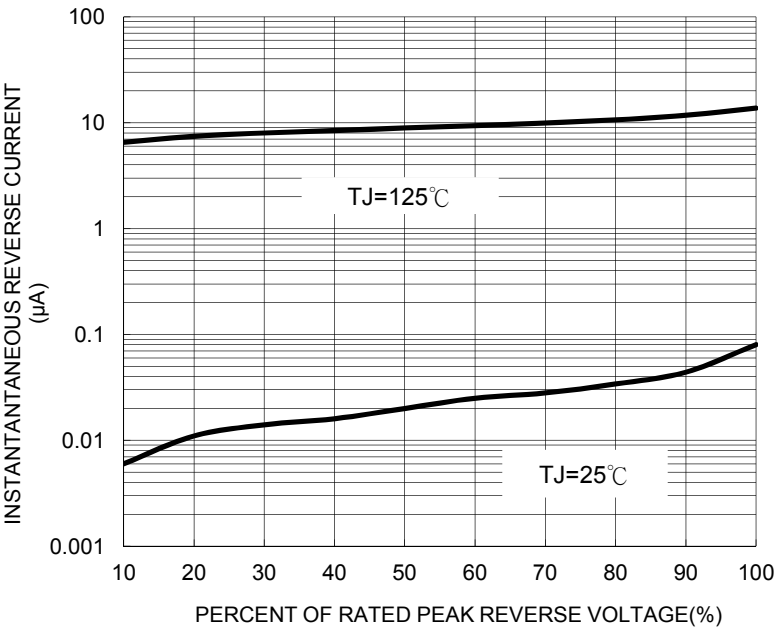
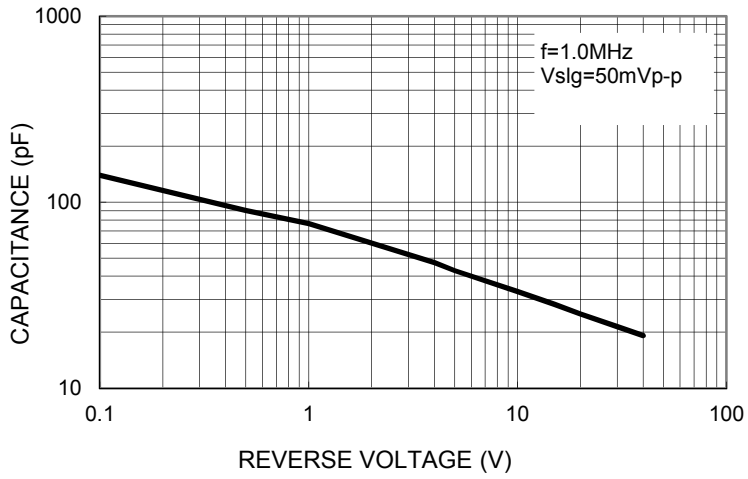
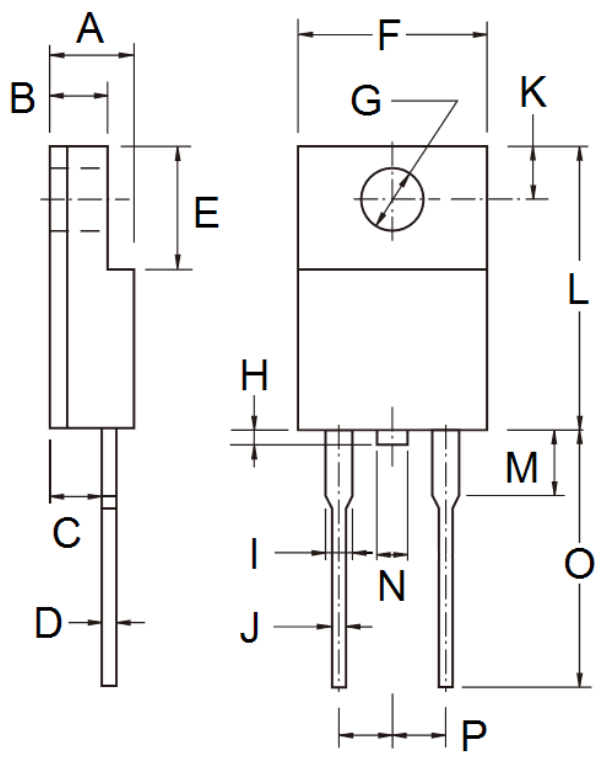


FIG. 5 TYPICAL JUNCTION CAPACITANCE

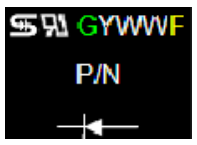


PACKAGE OUTLINE DIMENSIONS



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

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