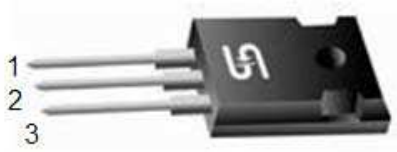
Ultra Fast Rectifiers

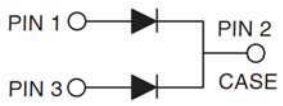
FEATURES

- Dual rectifier construction, positive center-tap
- Superfast recovery time, high voltage
- Low forward voltage, high current capability
- Low thermal resistance
- Low power loss, high efficiency
- 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

TO-247AD (TO-3P)



RoHS COMPLIANT

MECHANICAL DATA

Case: TO-247AD (TO-3P)

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 JESD22-B102
Meet JESD 201 class 1A whisker test

Polarity: As marked

Mounting torque: 1.13 Nm. max. (10 in-lbs. max.)

Weight: 6.1g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)			
PARAMETER	**SYMBOL**	**UG6005PT**	**UNIT**
Maximum repetitive peak reverse voltage	V_{RRM}	300	V
Maximum RMS voltage	V_{RMS}	210	V
Maximum DC blocking voltage	V_{DC}	300	V
Maximum average forward rectified current	$I_{F(AV)}$	60	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	300	A
Maximum instantaneous forward voltage (Note 1) IF= 30 A	V_F	1.25	V
Maximum DC Reverse Current at @ T_J=25 ℃ Rated DC Blocking Voltage @ T_J=125℃	I_R	5 600	μA
Maximum reverse recovery time (Note 2)	Trr	25	ns
Typical thermal resistance	$R_{\theta JC}$	1.0	^{O}C/W
Operating junction temperature range	T_J	- 55 to +175	^{O}C
Storage temperature range	T_{STG}	- 55 to +175	^{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, Recover to 0.25A.

ORDERING INFORMATION				
PART NO.	**PACKING CODE**	**GREEN COMPOUND CODE**	**PACKAGE**	**PACKING**
UG6005PT	C0	Suffix "G"	TO-3P	30 / Tube

EXAMPLE				
PREFERRED P/N	**PART NO.**	**PACKING CODE**	**GREEN COMPOUND CODE**	**DESCRIPTION**
UG6005PT C0	UG6005PT	C0		
UG6005PT C0G	UG6005PT	C0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(TA=25℃ unless otherwise noted)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

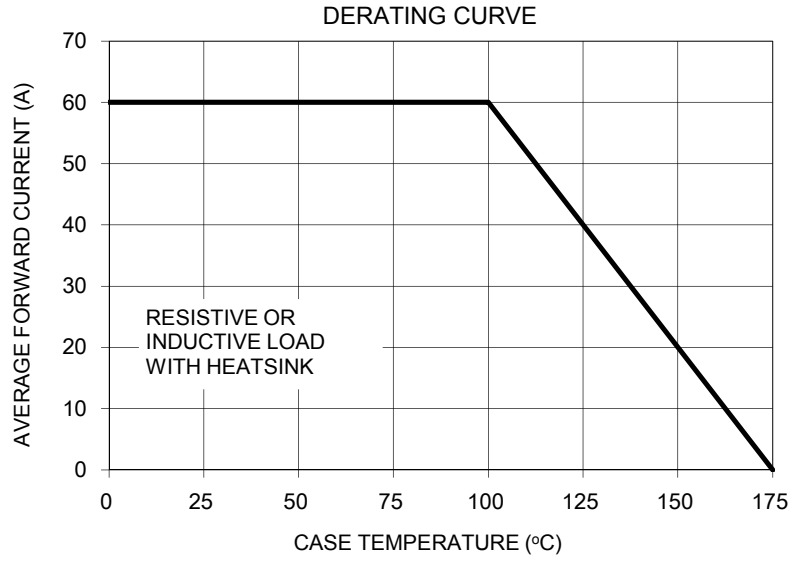


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

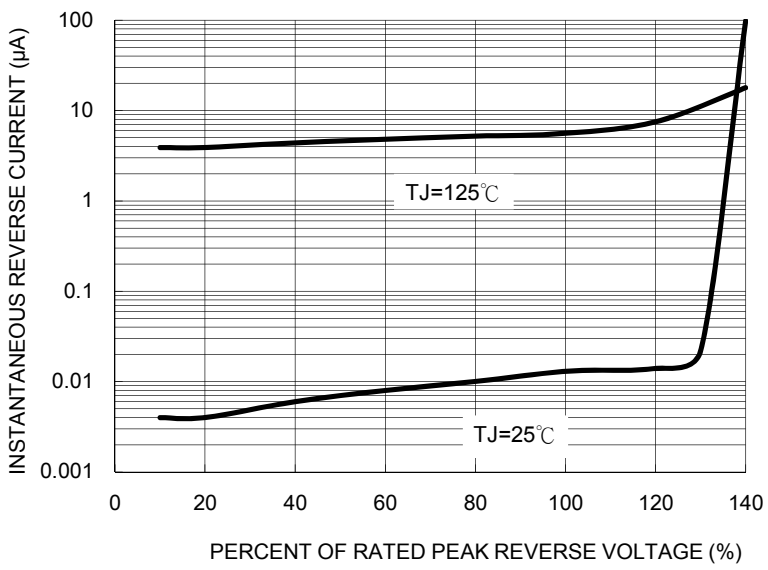


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

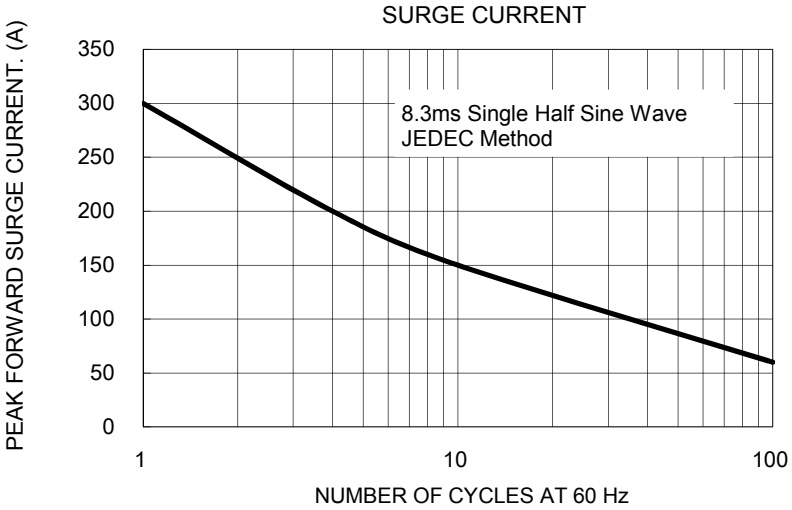


FIG. 4- TYPICAL INSTANEOUS FORWARD CHARACTERISTICS

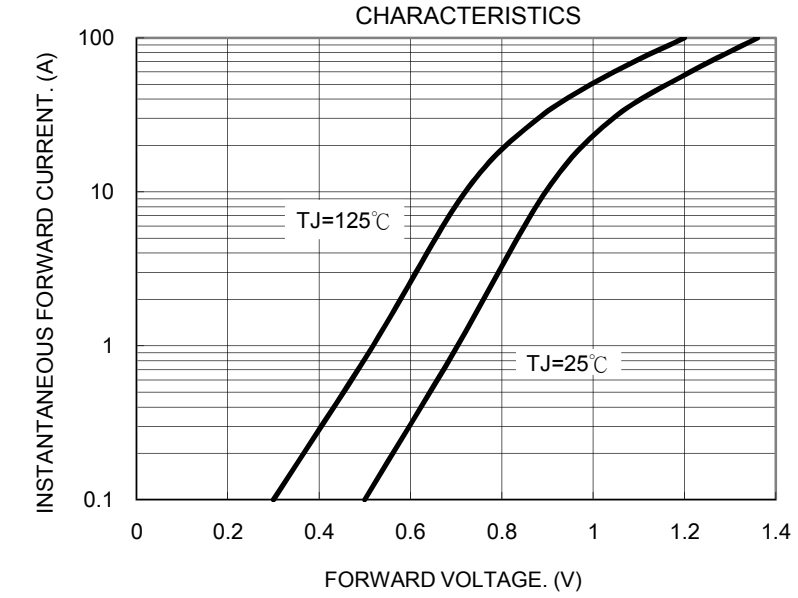


FIG. 5- TYPICAL JUNCTION CAPACITANCE

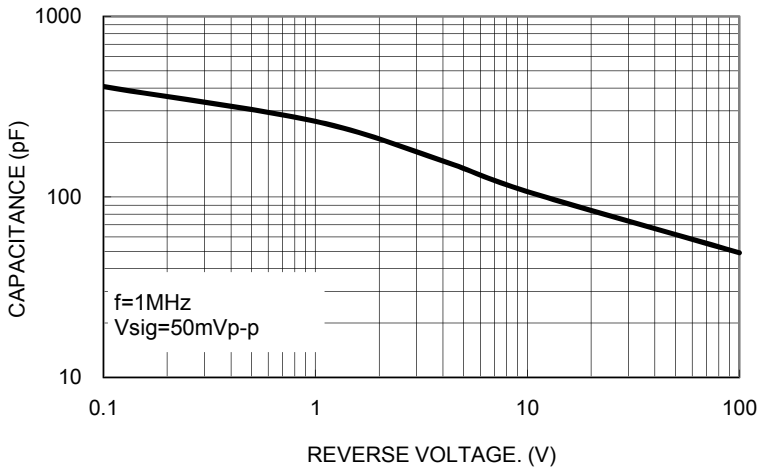
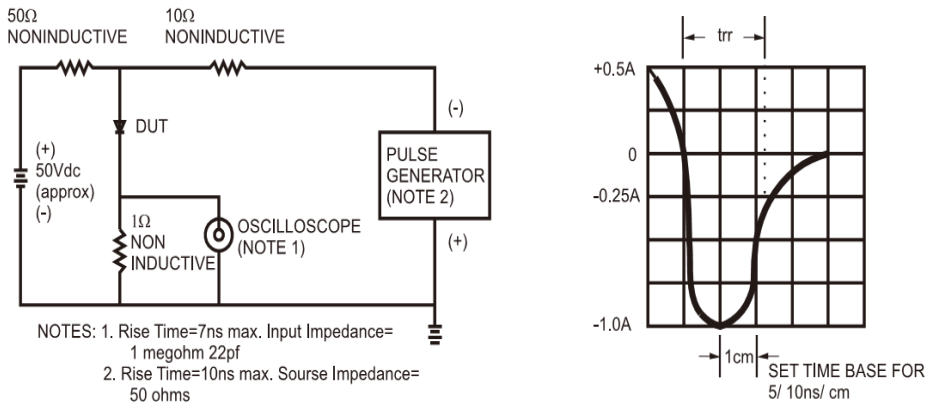
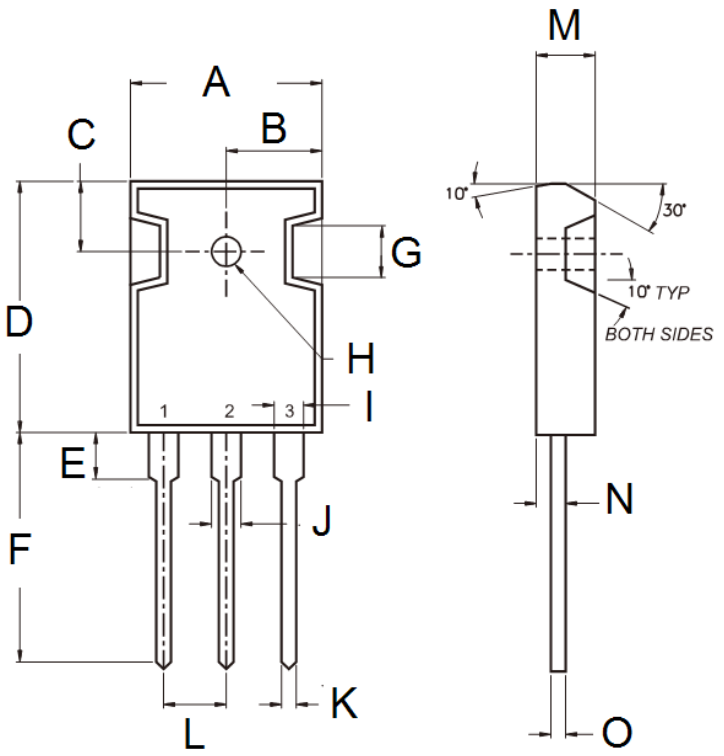


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	15.90	16.40	0.626	0.646
B	7.90	8.20	0.311	0.323
C	5.70	6.20	0.224	0.244
D	20.80	21.30	0.819	0.839
E	3.50	4.10	0.138	0.161
F	19.70	20.20	0.776	0.795
G	-	4.30	-	0.169
H	2.90	3.40	0.114	0.134
I	1.93	2.18	0.076	0.086
J	2.97	3.22	0.117	0.127
K	1.12	1.22	0.044	0.048
L	5.20	5.70	0.205	0.224
M	4.90	5.16	0.193	0.203
N	2.70	3.00	0.106	0.118
O	0.51	0.76	0.020	0.030

MARKING DIAGRAM

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