



60A, 300V Ultra Fast Rectifier

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







MECHANICAL DATA

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

Molding compound, UL flammability classification rating 94V-0

Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free) **Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: As marked

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

Weight: 6.1g (approximately)

	. 67
PIN 1 O	PIN 2
	<u> </u>
PIN 3O	CASE

TO-247AD (TO-3P)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C 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	Α	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	300	А	
Maximum instantaneous forward voltage (Note 1) I_F = 30 A	V _F	1.25	V	
Maximum reverse current @ rated V_R T_J =25°C T_J =125°C	I _R	5 600	μA	
Maximum reverse recovery time (Note 2)	t _{rr}	25	ns	
Typical thermal resistance	$R_{ heta JC}$	1.0	°C/W	
Operating junction temperature range	TJ	- 55 to +175	°C	
Storage temperature range	T _{STG}	- 55 to +175	°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.



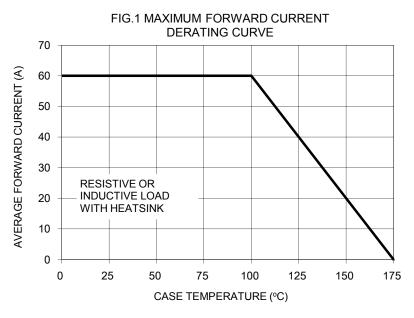
ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX ^(*)	PACKAGE	PACKING
UG6005PT	Н	C0	G	ITO-220AB	50 / Tube

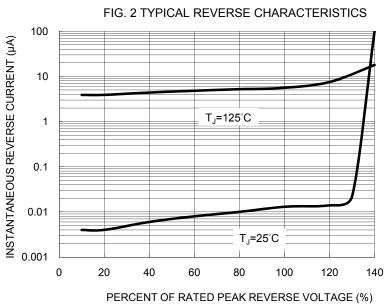
^{*:} Optional available

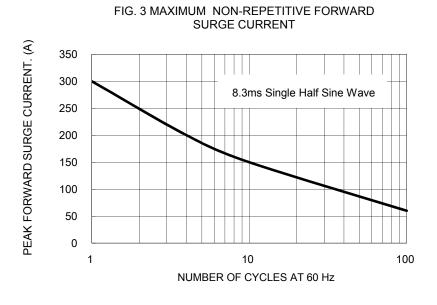
EXAMPLE						
PREFERRED P/N PART NO. SUFFIX			PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION	
UG6005PTHC0G	UG6005PT	I	CO	G	AEC-Q101 qualified Green compound	

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)







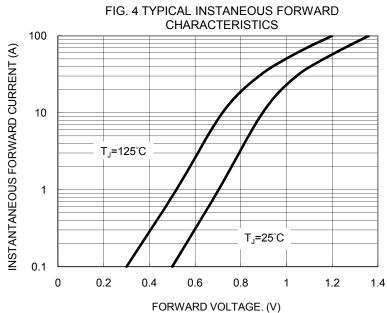




FIG. 5 TYPICAL JUNCTION CAPACITANCE

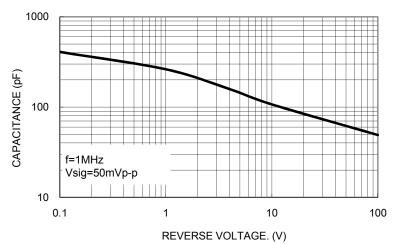
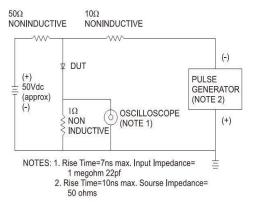
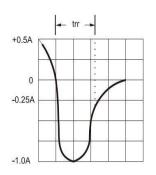
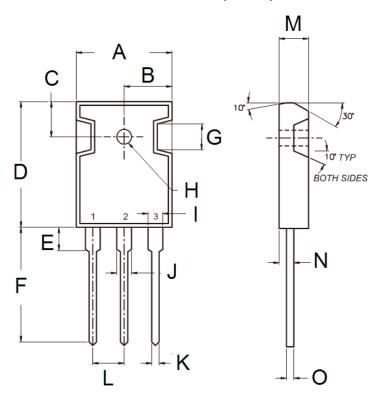


FIG.6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



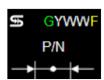


PACKAGE OUTLINE DIMENSIONS TO-247AD (TO-3P)



DIM.	Unit	(mm)	Unit (inch)	
	Min	Max	Min	Max
Α	15.90	16.40	0.626	0.646
В	7.90	8.20	0.311	0.323
С	5.70	6.20	0.224	0.244
D	20.80	21.30	0.819	0.839
Е	3.50	4.10	0.138	0.161
F	19.70	20.20	0.776	0.795
G	-	4.30	-	0.169
Н	2.90	3.40	0.114	0.134
1	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
М	4.90	5.16	0.193	0.203
N	2.70	3.00	0.106	0.118
0	0.51	0.76	0.020	0.030

MARKING DIAGRAM



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



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