

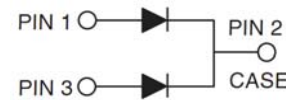
Glass Passivated High Efficient Rectifiers

FEATURES

- Superfast recovery time, high voltage
- Low forward voltage, high current capability
- Low thermal resistance
- Low power loss, high efficiency
- 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



TO-247AD (TO-3P)



MECHANICAL DATA

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

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - green compound (halogen-free)

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

Meet JESD 201 class 1A whisker test

Polarity: As marked

Mounting torque: 10 in-lbs maximum

Weight: 5.6 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)								
PARAMETER	SYMBOL	HER 3001 PT	HER 3002 PT	HER 3003 PT	HER 3004 PT	HER 3005 PT	HER 3006 PT	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	300	400	600	V
Maximum RMS voltage	V _{RMS}	35	70	140	210	280	420	V
Maximum DC blocking voltage	V _{DC}	50	100	200	300	400	600	V
Maximum average forward rectified current	I _{F(AV)}	30						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 2) I _F =15A	V _F	1.0			1.3	1.7	V	
Maximum reverse current @ rated VR T _J =25 °C T _J =125 °C	I _R	10 500						μA
Maximum reverse recovery time (Note 2)	t _{rr}	50					80	ns
Typical junction capacitance (Note 3)	C _j	175					145	pF
Typical thermal resistance	R _{θJC}	1.4						°C/W
Operating junction temperature range	T _J	- 55 to +150						°C
Storage temperature range	T _{STG}	- 55 to +150						°C

Note 1: 2.0μs Pulse Width, f=1.0KHz

Note 2: Pulse Test : 300μs Pulse Width, 1% Duty Cycle

ORDERING INFORMATION

PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
HER30xxPT (Note 1)	C0	Suffix "G"	TO-3P	30 / Tube

Note 1: "xx" defines voltage from 50V (HER3001PT) to 600V (HER3006PT)

EXAMPLE

PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
HER3006PT C0	HER3006PT	C0		
HER3006PT C0G	HER3006PT	C0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

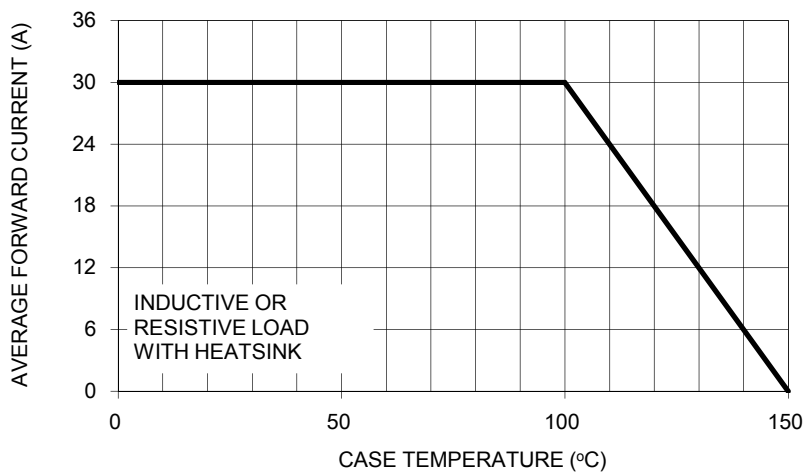


FIG. 2- TYPICAL REVERSE CHARACTERISTICS PER LEG

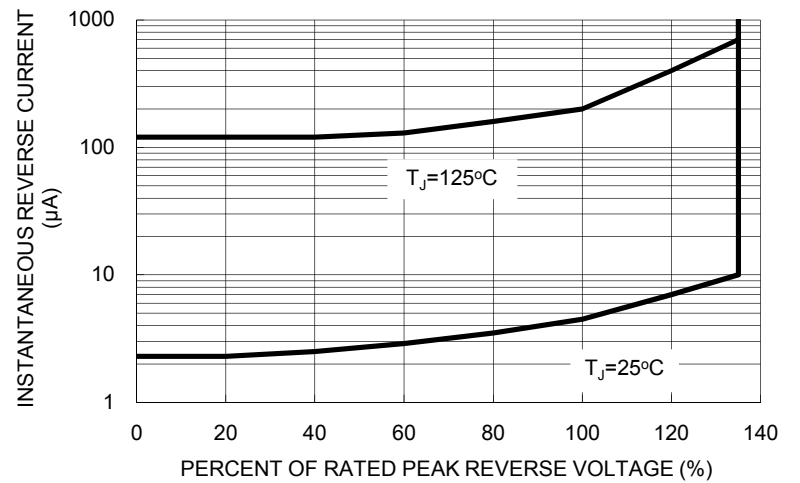


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

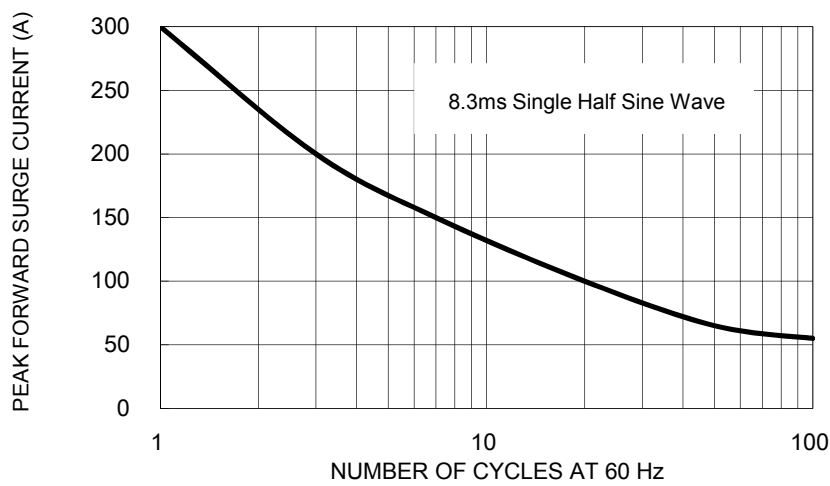


FIG. 5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

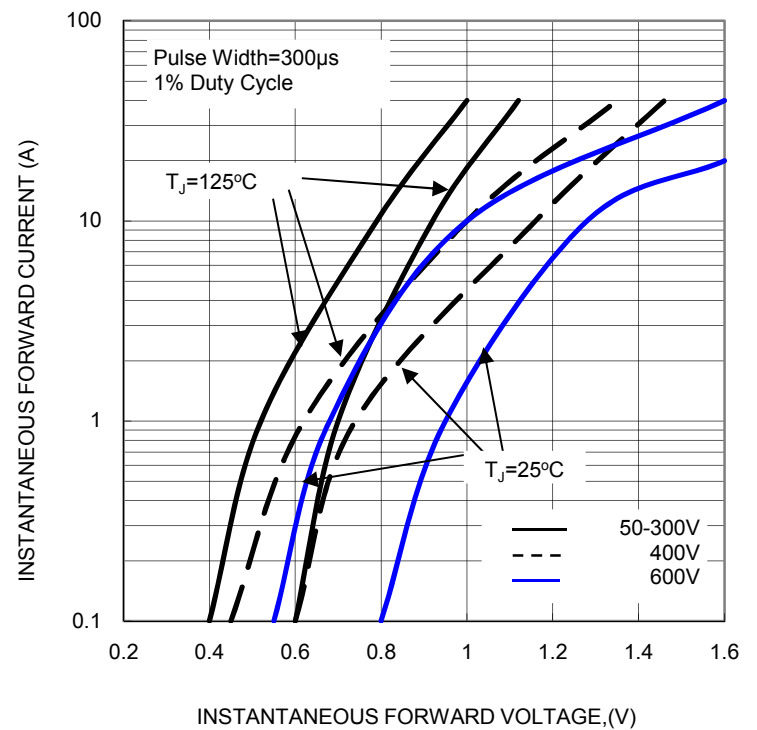


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

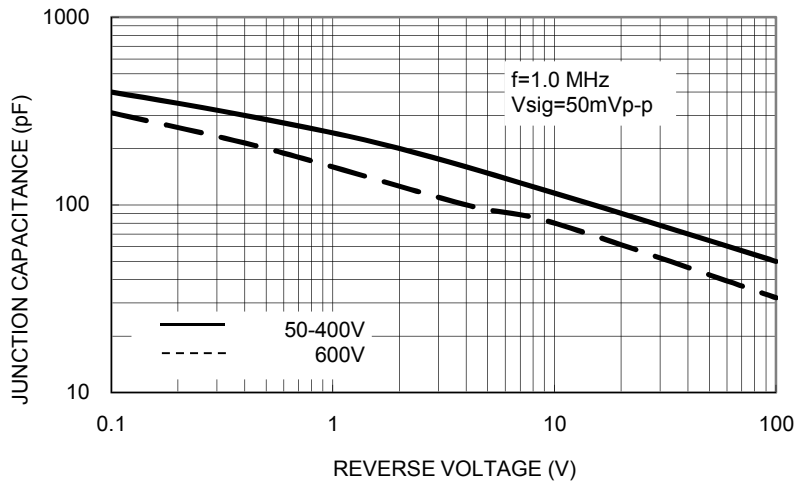
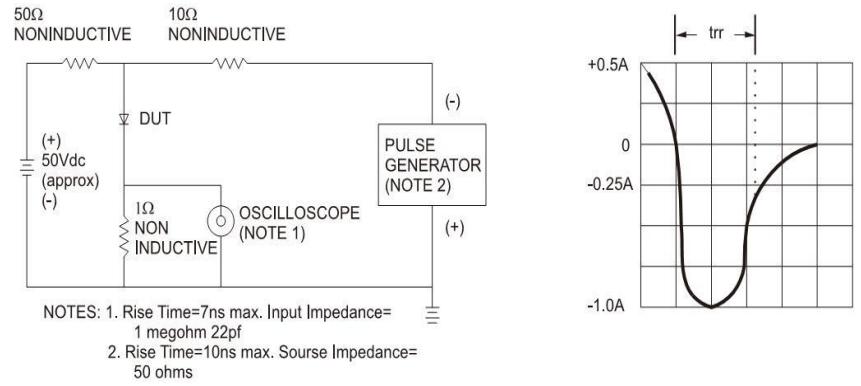
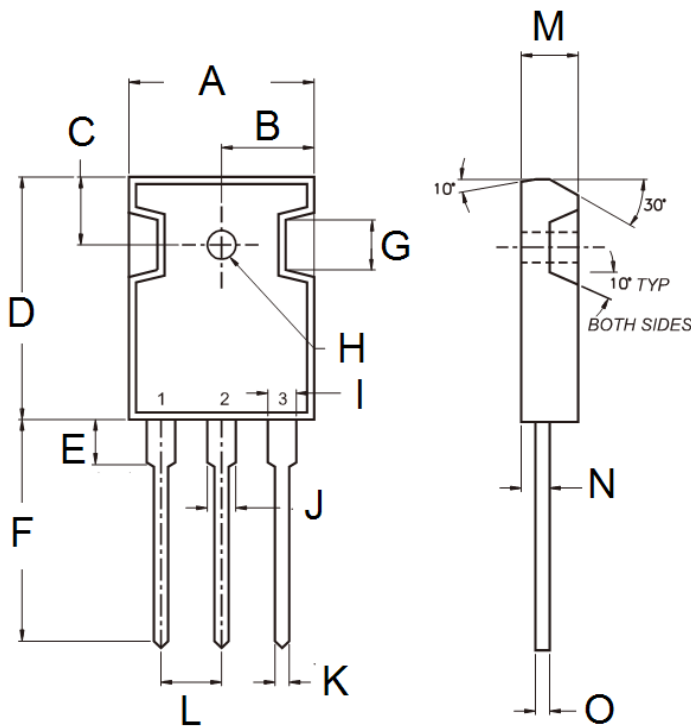


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
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 = Specific Device Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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