



# **Glass Passivated High Efficient Rectifiers**

#### **FEATURES**

- Glass passivated chip junction
- High efficiency, Low VF
- High current capability
- High reliability
- High surge current capability
- 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: R-6

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 **Weight:** 1.65 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERSTICS (T <sub>A</sub> =25℃ unless otherwise noted)								
PARAMETER	SYMBOL	HER 601G	HER 602G	HER 603G	HER 604G	HER 605G	HER 606G	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	300	400	600	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	210	280	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	300	400	600	V
Maximum average forward rectified current	$I_{F(AV)}$	6				Α		
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150				Α		
Maximum instantaneous forward voltage (Note 1) @ 6 A	V <sub>F</sub>	1.0 1.3			1.7	V		
Maximum reverse current @ rated VR $T_J$ =25 $^{\circ}$ C $T_J$ =125 $^{\circ}$ C	I <sub>R</sub>	10 200				μΑ		
Maximum reverse recovery time (Note 2)	trr	50 75		75	ns			
Typical junction capacitance (Note 2)	Cj	80 6		65	pF			
Typical thermal resistance	$R_{\theta jA}$	37				°C/W		
Operating junction temperature range	T <sub>J</sub>	- 55 to +150				οС		
Storage temperature range	T <sub>STG</sub>	- 55 to +150				οС		

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

Note 2: Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

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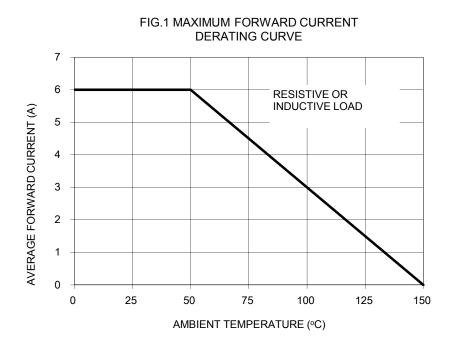
ORDERING INFORMATION						
PART NO.	PACKING CODE	GREEN COMPOUND	PACKAGE	PACKING		
		CODE				
LIEDOO	A0		R-6	700 / Ammo box		
HER60xG (Note 1)	R0	Suffix "G"	R-6	1,000 / 13" Paper reel		
(11010-1)	В0		R-6	400 / Bulk packing		

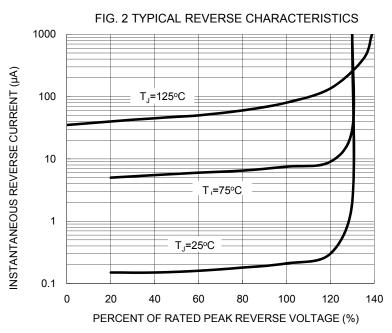
Note 1: "x" defines voltage from 50V (HER601G) to 600V (HER606G)

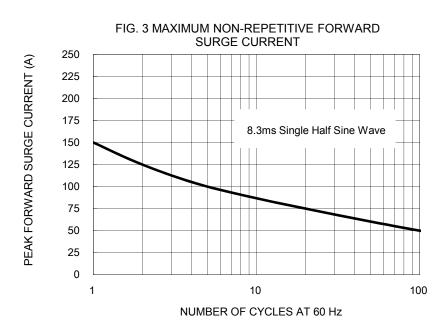
EXAMPLE						
PREFERRED P/N PART NO.		PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION		
HER605G A0	HER605G	A0				
HER605G A0G	HER605G	A0	G	Green compound		

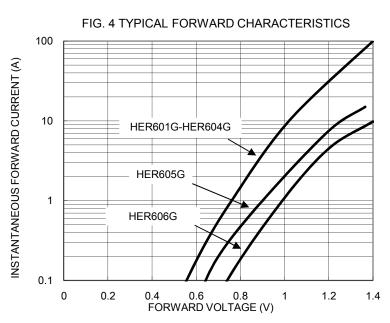
#### **RATINGS AND CHARACTERISTICS CURVES**

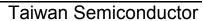
(TA=25°C unless otherwise noted)



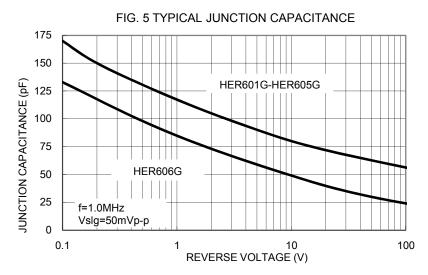




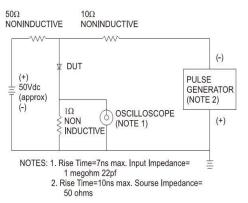


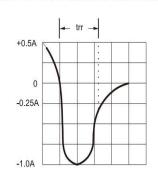






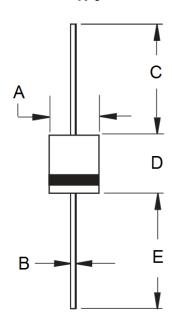
### FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





### **PACKAGE OUTLINE DIMENSIONS**

**R-6** 



DIM.	Unit	(mm)	Unit (inch)			
DIIVI.	Min	Max	Min	Max		
Α	6.80	7.20	0.268	0.283		
В	1.20	1.30	0.047	0.051		
С	25.40	-	1.000	-		
D	8.60	9.10	0.339	0.358		
Е	25.40	_	1.000	_		

## **MARKING DIAGRAM**

P/N S⊑GYWWF P/N = Specific Device Code G = Green Compound

YWW = Date Code F = Factory Code





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