

1.5A, 50V - 1000V Glass Passivated High Efficient Rectifiers

FEATURES

- Glass passivated chip junction
- High efficiency, Low VF
- High current capability
- High surge current capability
- Low power loss
- 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: DO-204AC (DO-15)

Molding compound, UL flammability classification rating 94V-0

Packing code with suffix "G" means green compound (halogen-free)

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

Meet JESD 201 class 1A whisker test

Weight: 0.4g (approximately)

DO-204AC (DO-15)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)											
PARAMETER	SYMBOL	HER 151G	HER 152G	HER 153G	HER 154G	HER 155G	HER 156G	HER 157G	HER 158G	UNIT	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	300	400	600	800	1000	V	
Maximum RMS voltage	V _{RMS}	35	70	140	210	280	420	560	700	V	
Maximum DC blocking voltage	V _{DC}	50	100	200	300	400	600	800	1000	V	
Maximum average forward rectified current	I _{F(AV)}	1.5								A	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	50								A	
Maximum instantaneous forward voltage (Note 1) @ 1.5 A	V _F	1.0			1.3		1.7			V	
Maximum reverse current @ rated VR	I _R	5								μA	
		150									
Maximum reverse recovery time (Note 2)	t _{rr}	50					75				ns
Typical junction capacitance (Note 3)	C _J	35					20				pF
Typical thermal resistance	R _{θJA}	60								°C/W	
Operating junction temperature range	T _J	- 55 to +150								°C	
Storage temperature range	T _{STG}	- 55 to +150								°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

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

ORDERING INFORMATION

PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
HER15xG (Note 1)	A0	G	DO-15	1500 / Ammo box
	R0		DO-15	3,500 / 13" Paper reel
	B0		DO-15	1000 / Bulk packing

Note 1: "x" defines voltage from 50V (HER151G) to 1000V (HER158G)

EXAMPLE

PREFERRED P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
HER158G A0G	HER158G	A0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

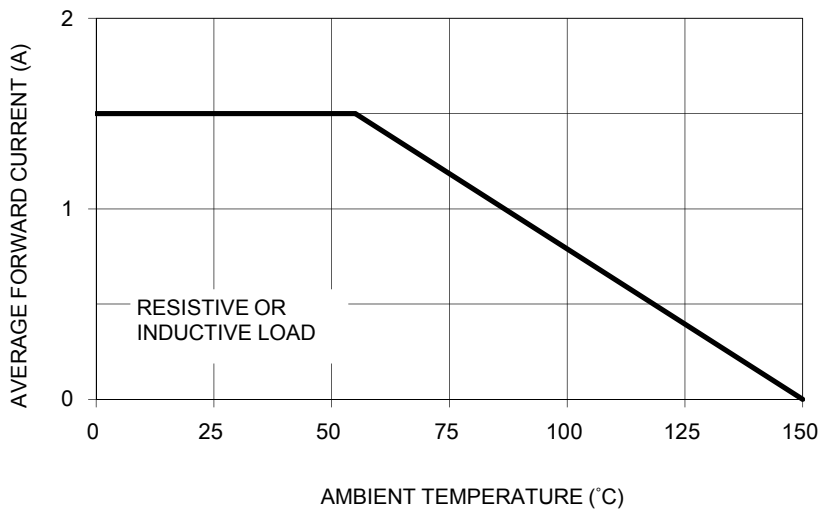


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

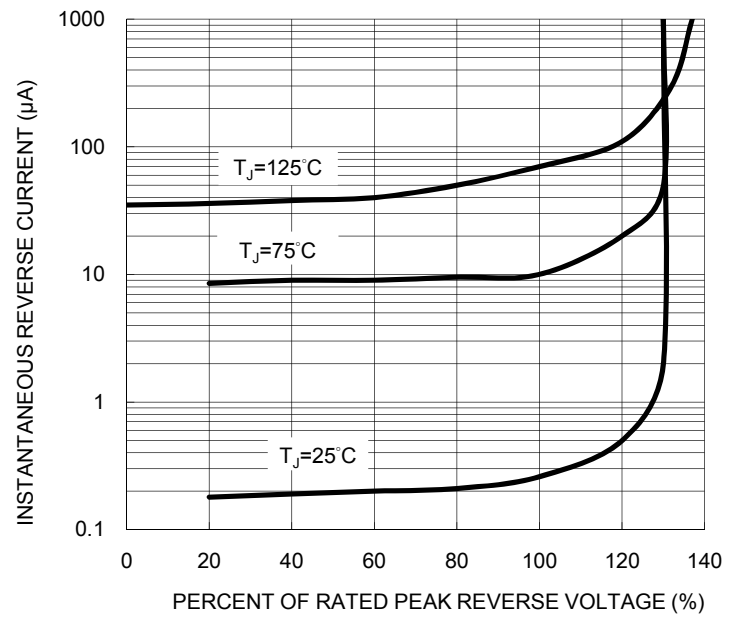


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

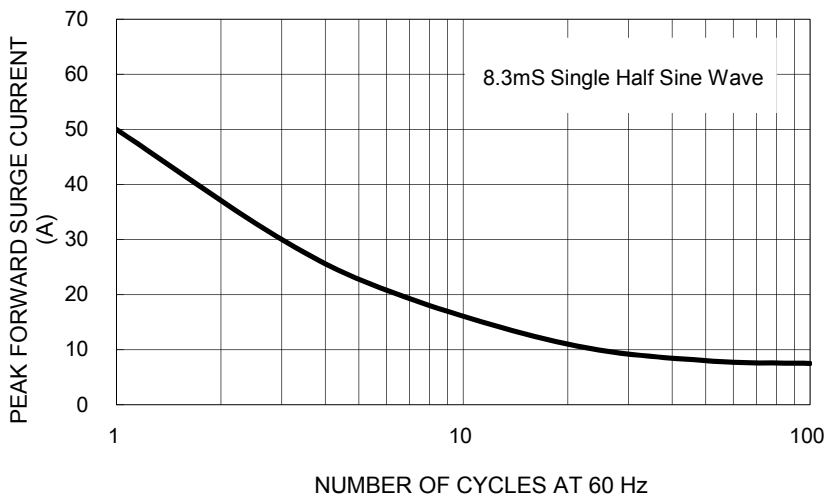


FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

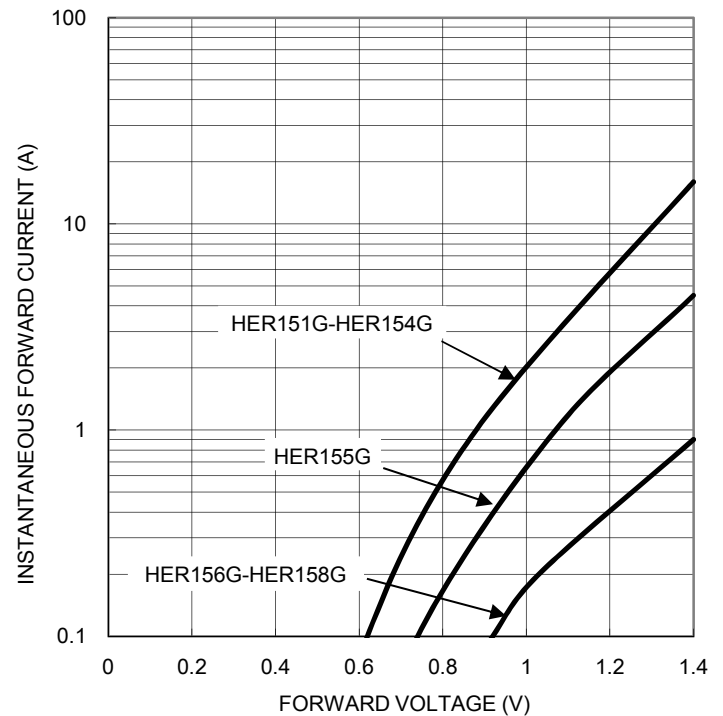


FIG. 5- TYPICAL JUNCTION CAPACITANCE

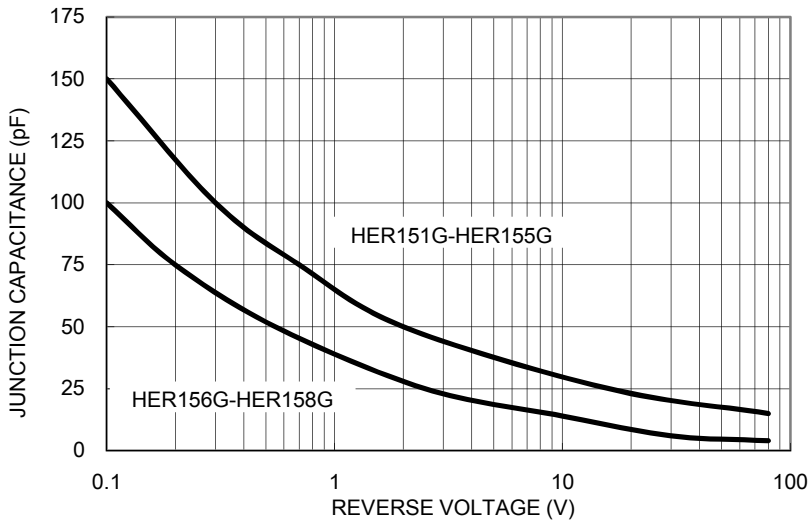
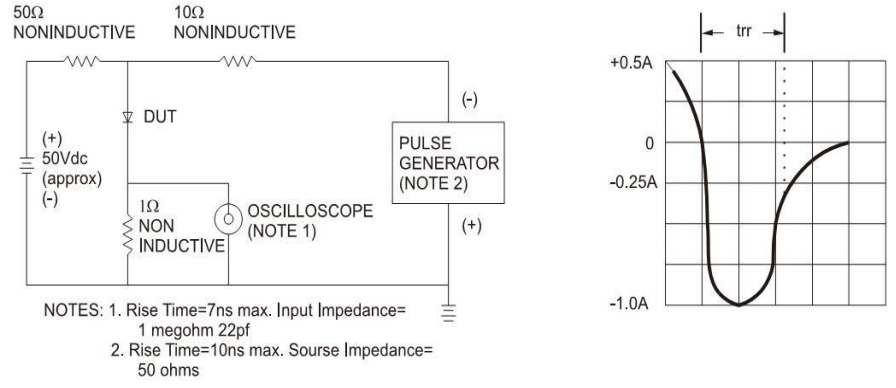
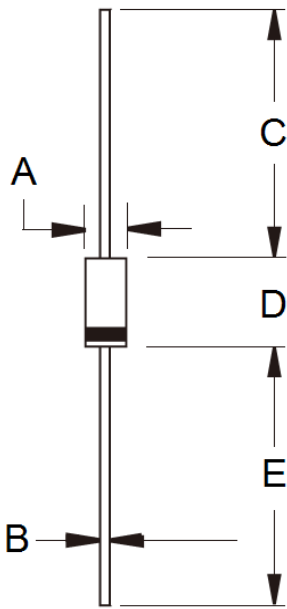


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE OUTLINE DIMENSIONS

DO-204AC (DO-15)



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.60	3.60	0.102	0.142
B	0.70	0.90	0.028	0.035
C	25.40	-	1.000	-
D	5.80	7.60	0.228	0.299
E	25.40	-	1.000	-

MARKING DIAGRAM



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

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