

1A, 50V - 1000V Glass Passivated High Efficient Rectifiers

FEATURES

- Glass passivated chip junction
- High current capability, Low VF
- 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


DO-204AL (DO-41)

MECHANICAL DATA

Case: DO-204AL (DO-41)

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: Pure tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Weight: 0.33 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)											
PARAMETER	SYMBOL	HER 101G	HER 102G	HER 103G	HER 104G	HER 105G	HER 106G	HER 107G	HER 108G	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								A	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	30								A	
Maximum instantaneous forward voltage (Note 1) @ 1 A	V _F	1.0			1.3	1.7			V		
Maximum reverse current @ rated VR T _J =25 °C T _J =125 °C	I _R	5 150								μA	
Maximum reverse recovery time (Note 2)	t _{rr}	50					75				ns
Typical junction capacitance (Note 3)	C _j	15					10				pF
Typical thermal resistance	R _{θJC} R _{θJA}	15 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=300μs, 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.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
HER10xG (Note 1)	H	A0	G	DO-41	3,000 / Ammo box (52mm taping)
		R0		DO-41	5,000 / 13" Paper reel
		R1		DO-41	5,000 / 13" Paper reel (Reverse)
		B0		DO-41	1,000 / Bulk packing

Note 1: "x" defines voltage from 50V (HER101G) to 1000V (HER108G)

EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
HER108GHA0G	HER108G	H	A0	G	AEC-Q101 qualified Green compound

RATINGS AND CHARACTERISTICS CURVES

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

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

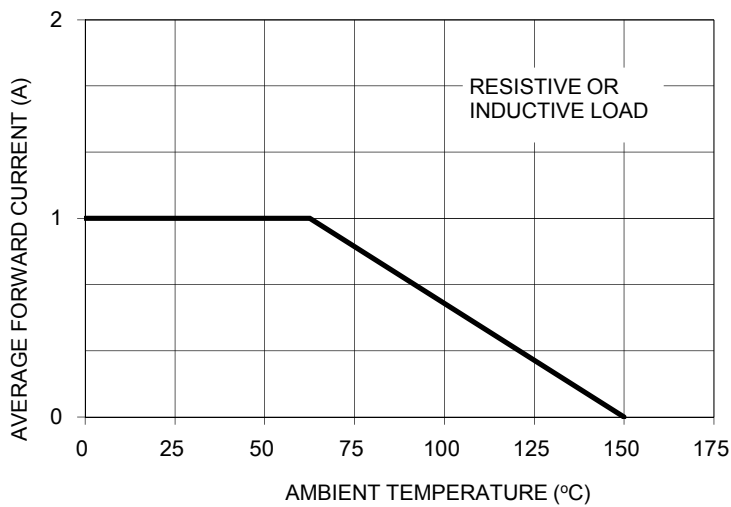


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

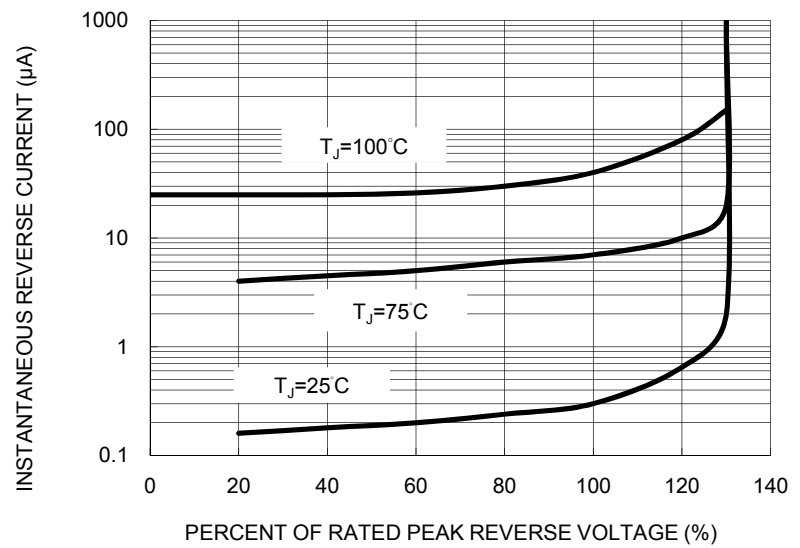


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

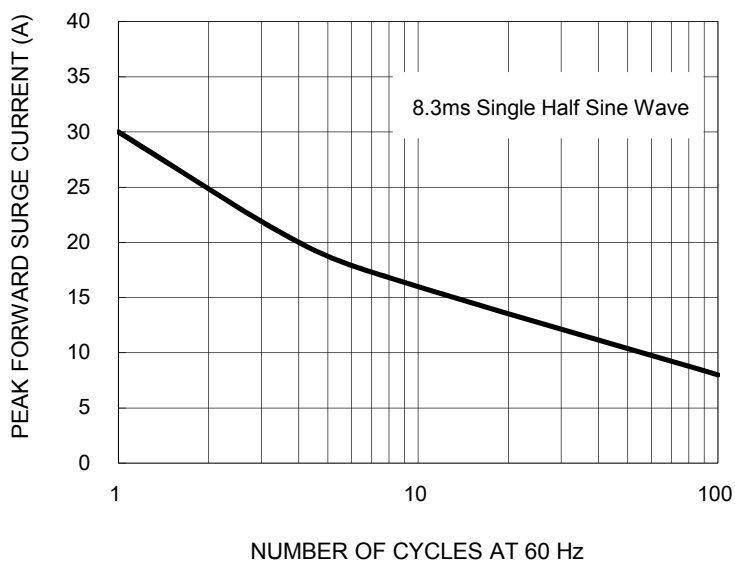


FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

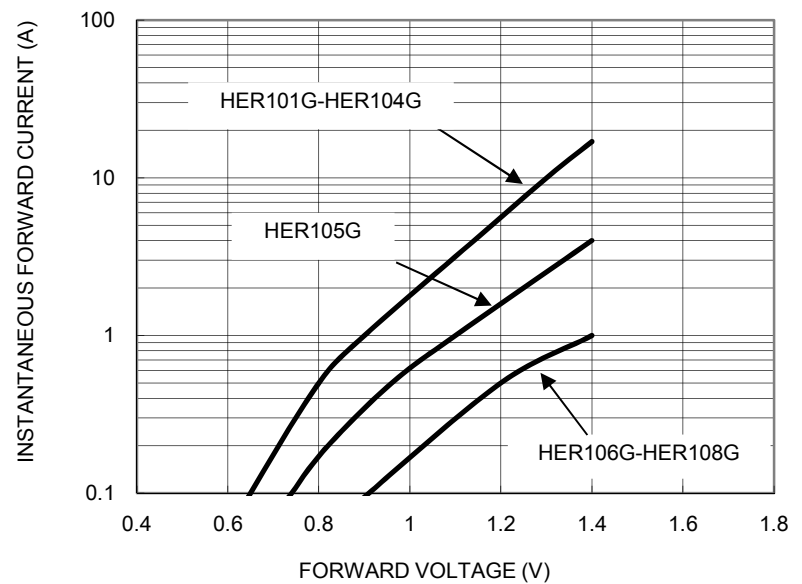


FIG. 5- TYPICAL JUNCTION CAPACITANCE

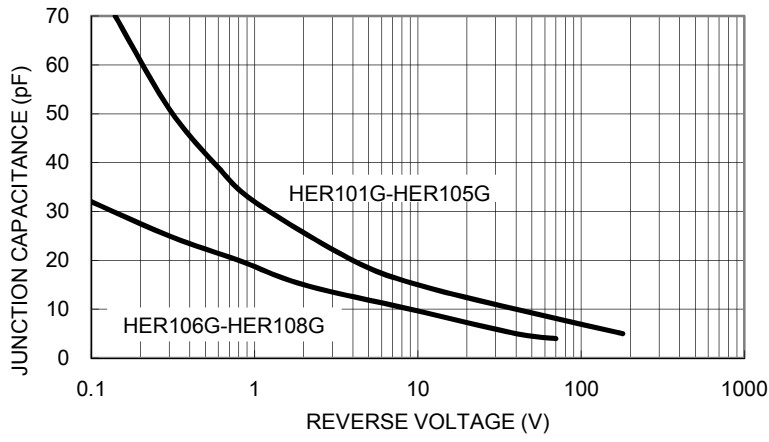
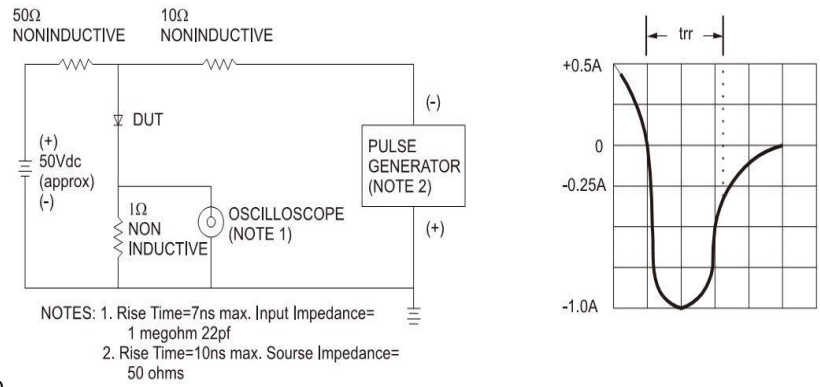
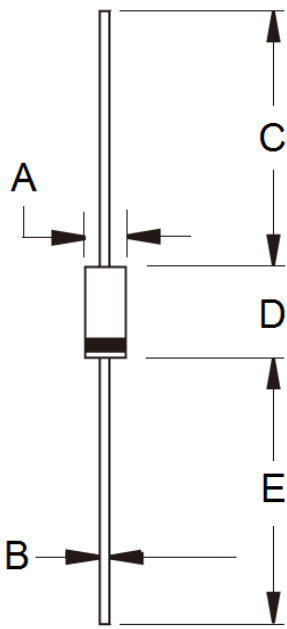


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE OUTLINE DIMENSIONS

DO-204AL (DO-41)



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.00	2.70	0.079	0.106
B	0.71	0.86	0.028	0.034
C	25.40	-	1.000	-
D	4.20	5.20	0.165	0.205
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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