

2A, 50V - 800V High Efficient Rectifiers

FEATURES

- 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



DO-204AC (DO-15)

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)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERSTICS (T _A =25°C unless otherwise noted)									
PARAMETER	SYMBOL	HER 201	HER 202	HER 203	HER 204	HER 205	HER 206	HER 207	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	300	400	600	800	V
Maximum RMS voltage	V _{RMS}	35	70	140	210	280	420	560	V
Maximum DC blocking voltage	V _{DC}	50	100	200	300	400	600	800	V
Maximum average forward rectified current	I _{F(AV)}	2							A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	60							A
Maximum instantaneous forward voltage (Note 1) @ 2 A	V _F	1.0				1.3	1.7		V
Maximum reverse current @ rated V _R 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	50					35		pF
Typical thermal resistance	R _{θJC} R _{θJA}	8 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 DC

ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX (*)	PACKAGE	PACKING
HER20x (Note 1)	A0	G	DO-15	1,500 / Ammo box
	R0		DO-15	3,500 / 13" Paper reel
	B0		DO-15	1,000 / Bulk packing

Note 1: "x" defines voltage from 50V (HER201) to 1000V (HER207)

*: Optional available

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
HER207 A0G	HER207	A0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

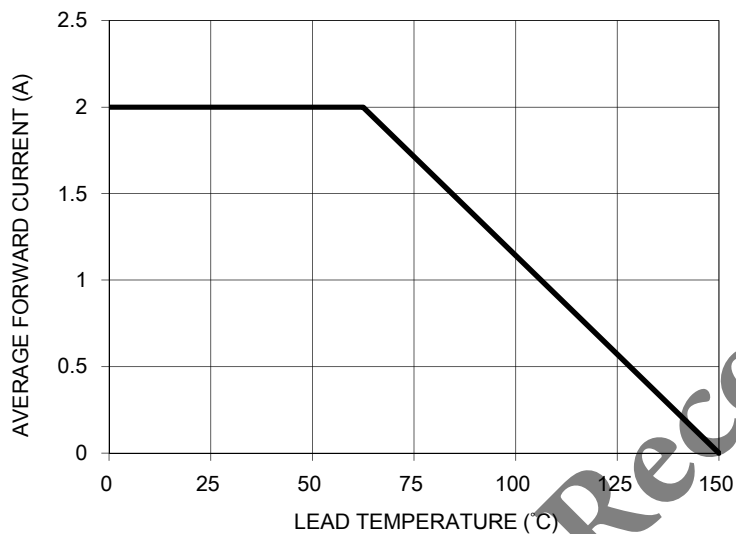


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

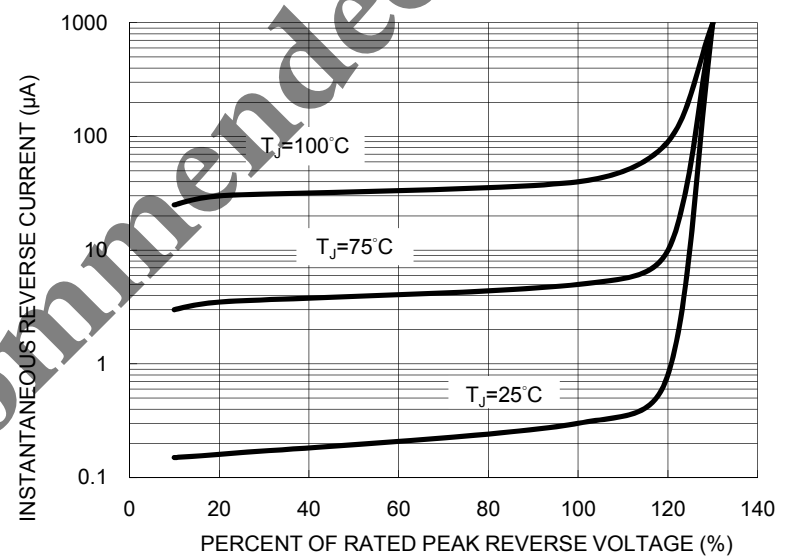


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

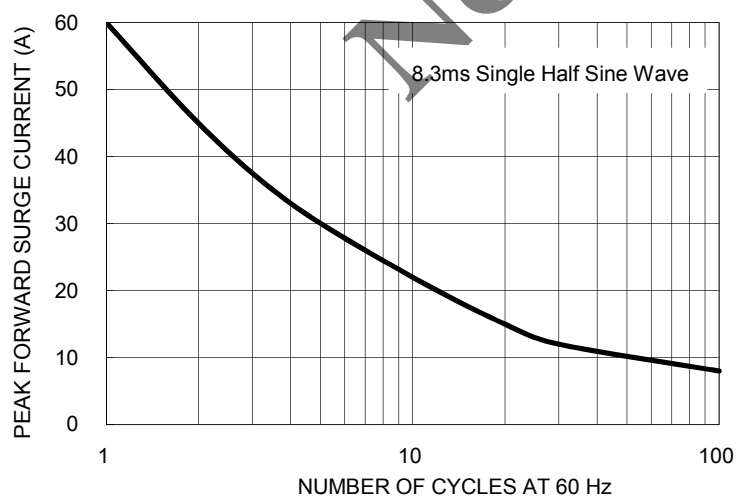


FIG. 4 TYPICAL JUNCTION CAPACITANCE

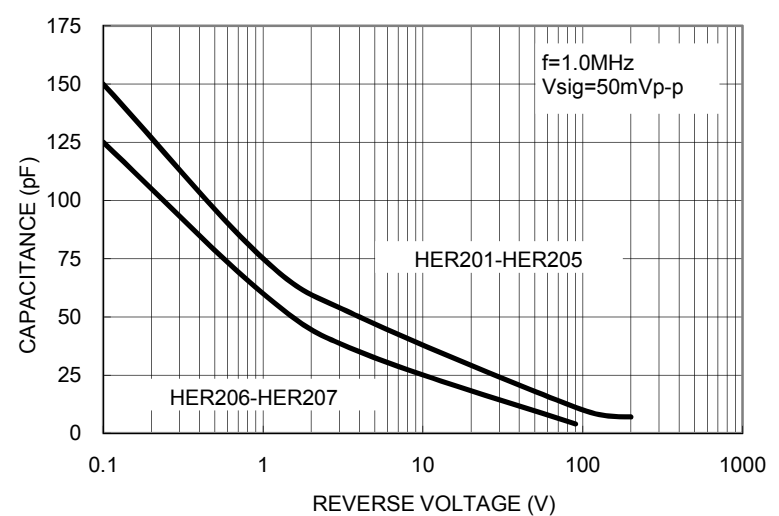


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

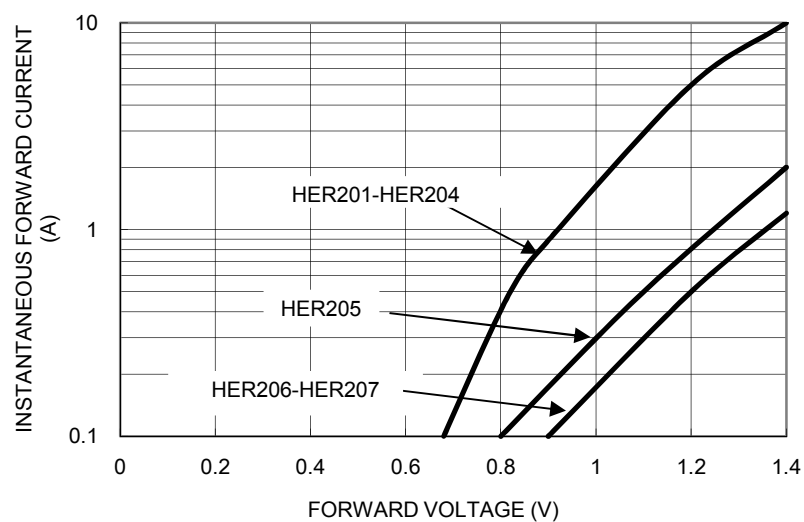
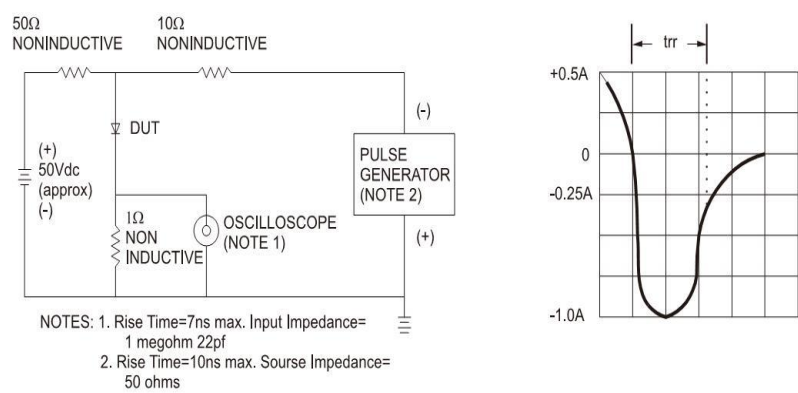
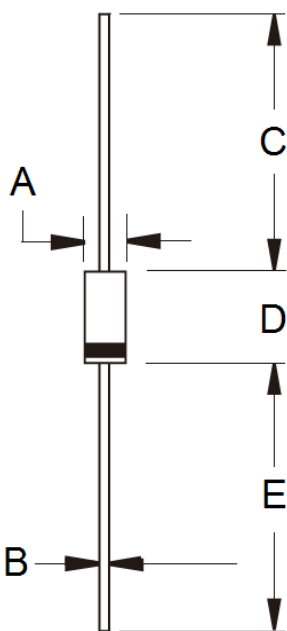


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



PACKAGE OUTLINE DIMENSIONS



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

Not Recommended

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