

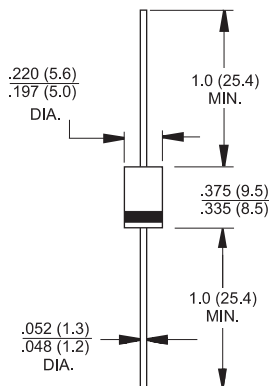


HER301G THRU HER308G

3.0 AMPS. Glass Passivated High Efficient Rectifiers

Voltage Range
50 to 1000 Volts
Current
3.0 Amperes

DO-201AD



Dimensions in inches and (millimeters)

Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Epoxy: UL 94V-O rate flame retardant
- ✧ Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode end
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Mounting position: Any
- ✧ Weight: 1.1 grams

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	HER 301G	HER 302G	HER 303G	HER 304G	HER 305G	HER 306G	HER 307G	HER 308G	Units
Maximum Recurrent 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 .375 (9.5mm) Lead Length @ T _A = 55°C	I _(AV)	3.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	125								A
Maximum Instantaneous Forward Voltage @ 3.0A	V _F	1.0				1.3	1.7			V
Maximum DC Reverse Current @ T _A =25°C at Rated DC Blocking Voltage @ T _A =125°C	I _R	10.0 200								µA µA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50					75			nS
Typical Junction Capacitance (Note 2)	C _j	80					50			pF
Typical Thermal Resistance (Note 3)	R θ JA R θ JL	20.0 5.6								°C/W
Operating & Storage Temperature Range	T _J /T _{STG}	-65 to +150								°C

Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

3. Thermal Resistance from Junction to Ambient and from Junction to Lead at 0.375"(9.5mm) Lead Length P.C.B. Mounted.

RATINGS AND CHARACTERISTIC CURVES (HER301G THRU HER308G)

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

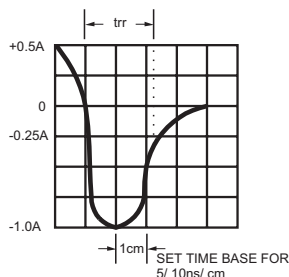
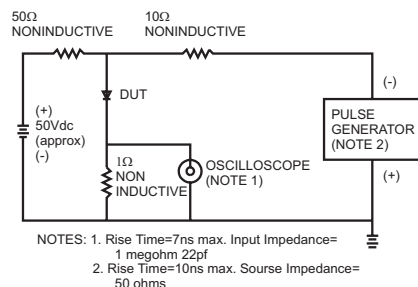


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

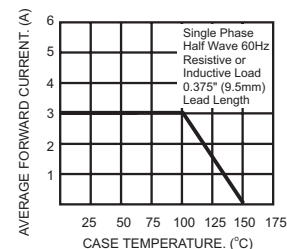


FIG.3- TYPICAL REVERSE CHARACTERISTICS

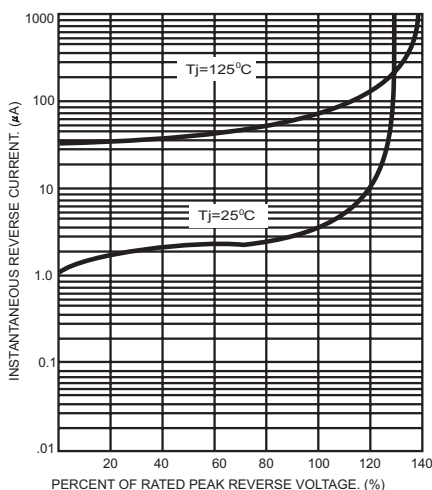


FIG.4- TYPICAL FORWARD CHARACTERISTICS

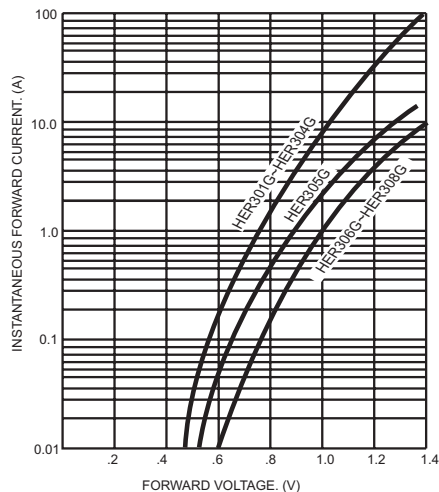


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

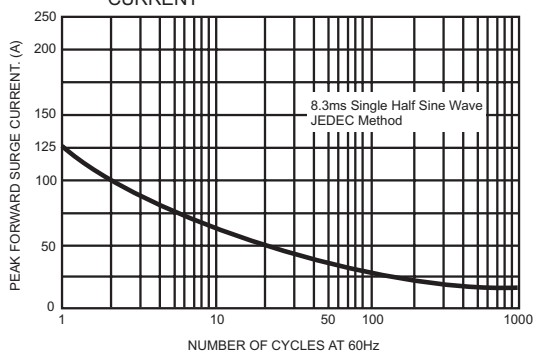


FIG.6- TYPICAL JUNCTION CAPACITANCE

