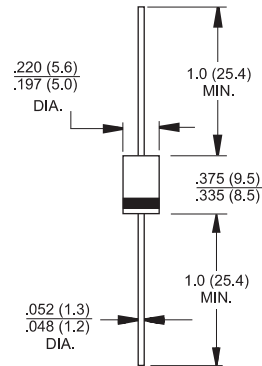




### DO-201AD



### Features

- ◇ Glass passivated chip junction.
- ◇ High efficiency, Low VF
- ◇ High current capability
- ◇ High reliability
- ◇ High surge current capability
- ◇ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application.
- ◇ Green compound with suffix "G" on packing code & prefix "G" on datecode.

### Mechanical Data

- ◇ Case: Molded plastic
- ◇ Epoxy: UL 94V0 rate flame retardant
- ◇ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ◇ Polarity: Color band denotes cathode
- ◇ 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

Dimensions in inches and (millimeters)

#### Marking Diagram



- HER30XG = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

### 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 @ $T_A = 55^\circ C$	$I_{AV}$	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 @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	$I_R$	10 200								uA uA	
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	50					75				nS
Typical Junction Capacitance ( Note 2 )	$C_j$	60					35				pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	35 10									°C/W
Operating & Storage Temperature Range	$T_J / T_{STG}$	-65 to +150								°C	

- Notes:
1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$
  2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
  3. Mount on Cu-Pad Size 16mm x 16mm on P.C.B

## RATINGS AND CHARACTERISTIC CURVES (HER301G THRU HER308G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

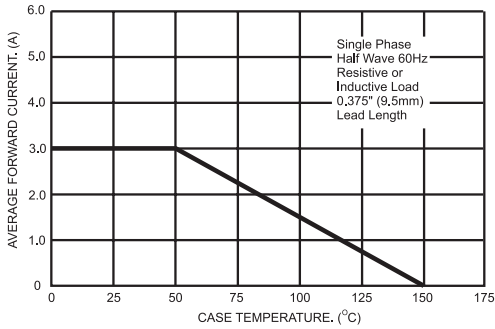


FIG.2- TYPICAL REVERSE CHARACTERISTICS

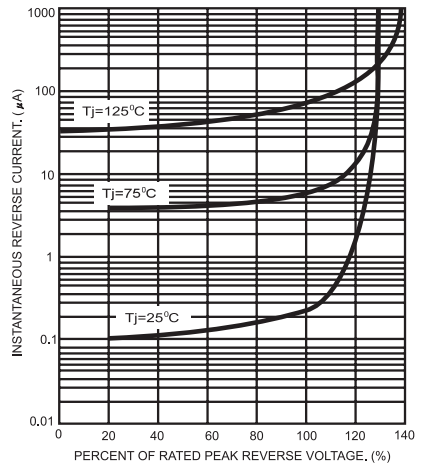


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

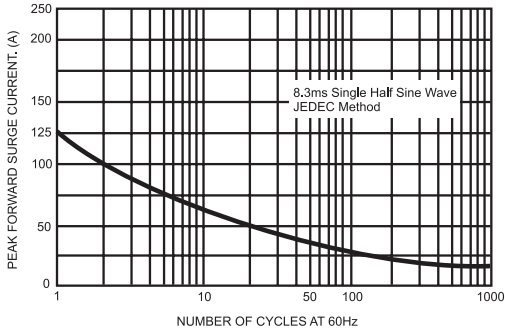


FIG.5- TYPICAL FORWARD CHARACTERISTICS

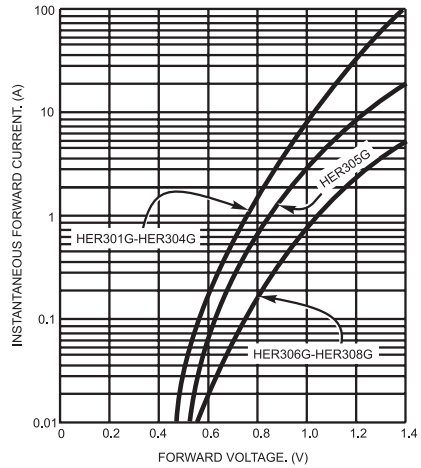


FIG.4- TYPICAL JUNCTION CAPACITANCE

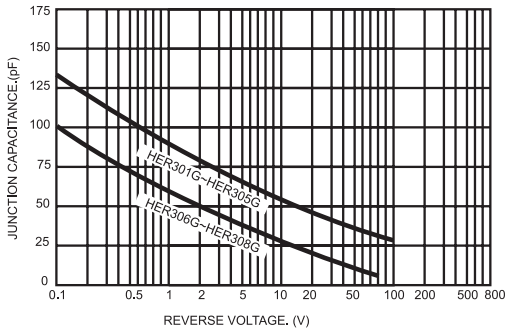


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

