



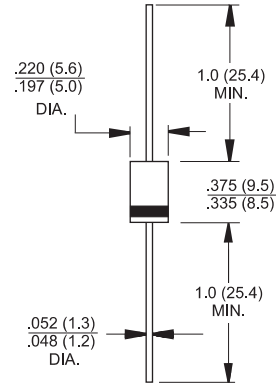
DO-201AD/DO-27

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.

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Epoxy: UL 94V0 rate flame retardant
- ✧ 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: 1.2 grams



Dimensions in inches and (millimeters)

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 301	HER 302	HER 303	HER 304	HER 305	HER 306	HER 307	HER 308	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								μA μA	
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								$^\circ C/W$	
Operating & Storage Temperature Range	T_J / T_{STG}	-65 to +150								$^\circ C$	

- 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 (HER301 THRU HER308)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

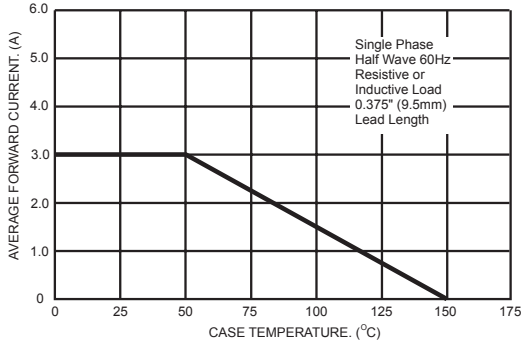


FIG.2- TYPICAL REVERSE CHARACTERISTICS

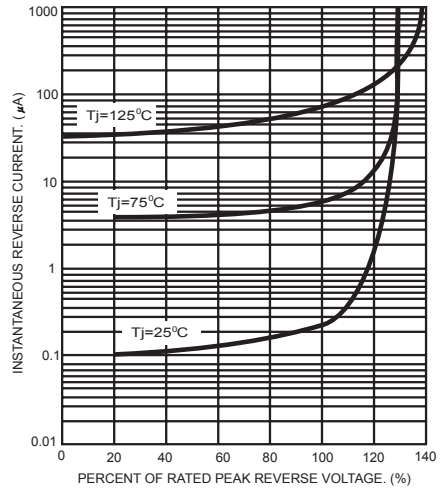


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

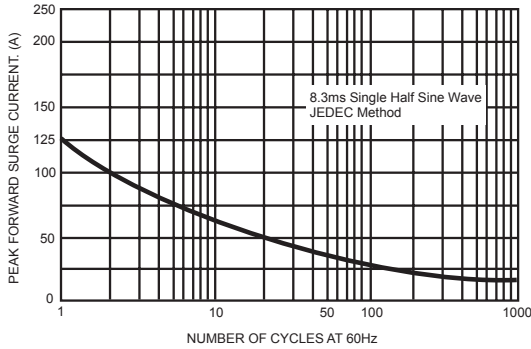


FIG.5- TYPICAL FORWARD CHARACTERISTICS

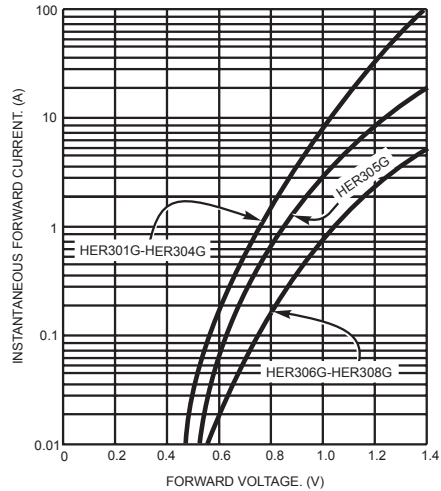


FIG.4- TYPICAL JUNCTION CAPACITANCE

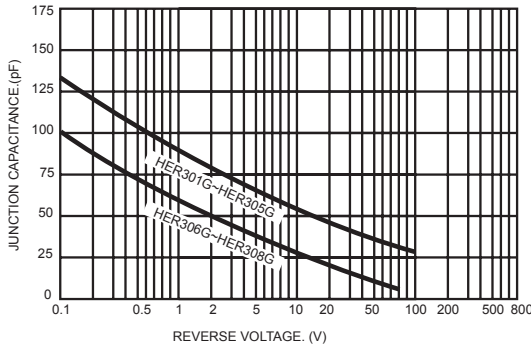


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

