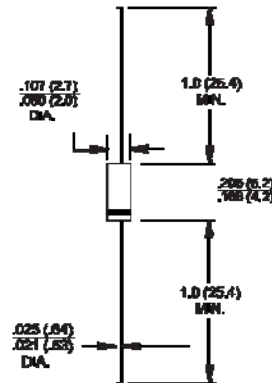


## Features

- 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

Cases: Molded plastic A-405  
 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  
 Weight: 0.22gram



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 101S	HER 102S	HER 103S	HER 104S	HER 105S	HER 106S	HER 107S	HER 108S	Units	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @T <sub>A</sub> = 55 °C	I <sub(av)< sub=""></sub(av)<>	1.0								A	
Peak Forward Surge current, 8.3 ms Single Half sine-wave superimposed on rated Load(JEDEC method)	I <sub>FSM</sub>	30								A	
Maximum Instantaneous Forward Voltage @ 1.0A	V <sub>F</sub>	1.0			1.3		1.7			V	
Maximum DC Reverse Current @T <sub>A</sub> =25 °C at Rated DC Blocking Voltage @ T <sub>A</sub> =125 °C	I <sub>R</sub>	5.0 150								uA uA	
Maximum Reverse Recovery Time ( Note 1 )	T <sub>rr</sub>	50					75				nS
Typical Junction Capacitance ( Note 2 )	C <sub>j</sub>	20					15				pF
Typical Thermal Resistance	R <sub>θJA</sub>	100								°C/W	
Operating Temperature Range	T <sub>J</sub>	-65 to +150								°C	
Storage Temperature Range	T <sub>STG</sub>	-65 to +150								°C	

Notes: 1. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A  
 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.  
 3. Mount on Cu-Pad Size 5mm x 5mm on PCB.

## RATINGS AND CHARACTERISTIC CURVES (HER101S THRU HER108S)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

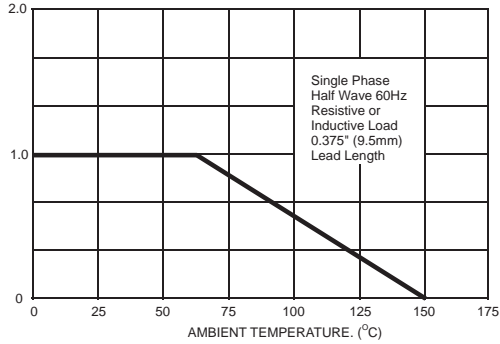


FIG.2- TYPICAL REVERSE CHARACTERISTICS

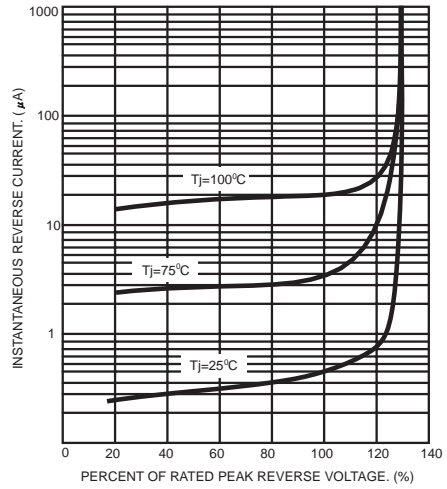


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

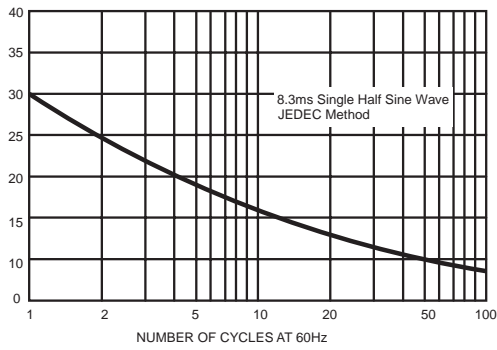


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

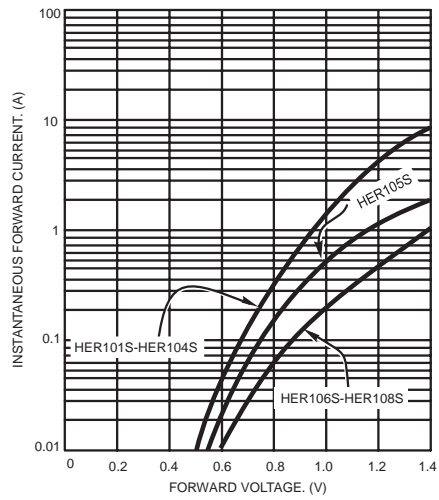


FIG.4- TYPICAL JUNCTION CAPACITANCE

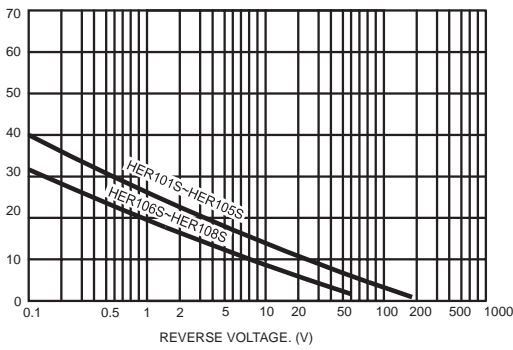
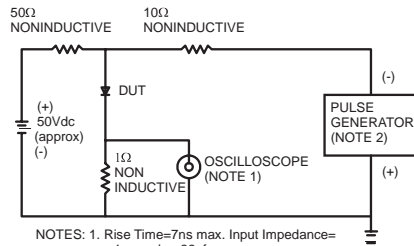


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pf  
2. Rise Time=10ns max. Source Impedance=50 ohms

