TSC 9

HER201 THRU HER208

2.0 AMPS. High Efficiency Rectifiers



Voltage Range 50 to 1000 Volts Current 2.0 Amperes

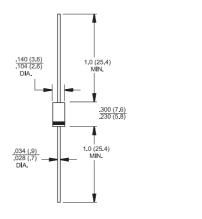
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Features

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

Mechanical Data

- ♦ Cases: 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
- ♦ Weight: 0.40grams



Dimension in inches and (Millimeters)

Maximum Rating 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 201	HER 202	HER 203	HER 204	HER 205	HER 206	HER 207	HER 208	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 $@T_A = 55^{\circ}$	I _(AV)	2.0								Α
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	60							Α	
Maximum Instantaneous Forward Voltage @ 2.0A	V_{F}	1.0 1.3					1.7		V	
Maximum DC Reverse Current @Ta=25°C at Rated DC Blocking Voltage @ Ta=100°C	I _R	5.0 100							uA uA	
Maximum Reverse Recovery Time (Note 1)	Trr	50					75		nS	
Typical Junction Capacitance (Note 2)	Cj	50				35		pF		
Typical Thermal Resistance (Note 3)	$R\theta_{JA}$	60							.C\M	
Operating Temperature Range	Τ _J	-65 to +150							${\mathbb C}$	
Storage Temperature Range	T_{STG}	-65 to +150							ొ	

- 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 10mm x 10mm on PCB.



RATINGS AND CHARACTERISTIC CURVES (HER201 THRU HER208)

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

 50Ω NONINDUCTIVE $\begin{array}{c} 10\Omega \\ \text{NONINDUCTIVE} \end{array}$ (-) DUT (+) 50Vdc PULSE GENERATOR (NOTE 2) (approx) (-) IΩ NON NOUCTIVE OSCILLOSCOPE (+) (NOTE 1) NOTES: 1. Rise Time=7ns max. Input Impedance=

1 megohm 22pf
2. Rise Time=10ns max. Sourse Impedance
50 ohms

⊢ trr → +0.5A 0 -0.25A -1.0A 1cm SET TIME BASE FOR 5/10ns/ cm

FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

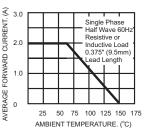


FIG.3- TYPICAL REVERSE CHARACTERISTICS

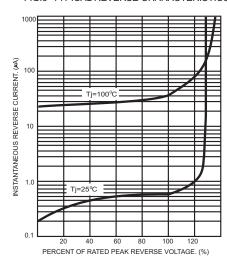


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PEAK FORWARD SURGE CURRENT. (A) 50 8.3ms Single Half Sine Way JEDEC Method 40 30 20 10 2 5 10 20 50 100 NUMBER OF CYCLES AT 60Hz

FIG.4- TYPICAL FORWARD CHARACTERISTICS

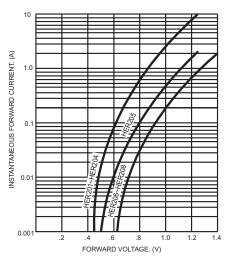
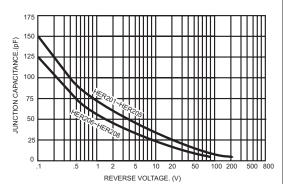


FIG.6- TYPICAL JUNCTION CAPACITANCE



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Datasheets for electronics components.