

## **HER301U THRU HER308U**

3.0 AMP. High Efficient Rectifiers

#### **Features**

· Low forward voltage drop

· High current capability

· High reliability

High surge current capability

Plastic material-UL flammability 94V-0

#### **Mechanical Data**

· Case: Molded plastic DO-201AD

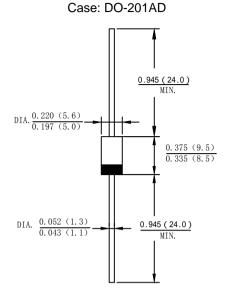
 Terminals: Plated leads solderable per MIL-STD-202, Method 208 guaranteed

· Polarity: Color band dentes cathode end

Mounting Position: Any

Making: Type Number

Lead Free: For RoHS/Lead Free Version



Dimensions in inches and (millimeters)

### **Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified

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

For capacitive load derate current by 20%

Type Number	SYMBOL	HER 301U	HER 302U	HER 303U	HER 304U	HER 305U	HER 306U	HER 307U	HER 308U	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	630	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∟=100°C	IF(AV)	3.0								А
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	Iгsм	150								А
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	l <sup>2</sup> t	93.375								A <sup>2</sup> s
Forward Voltage @IF=3.0A	V <sub>FM</sub>	1.0 1.3 1.7						V		
Peak Reverse Current @T <sub>A</sub> =25°C	5.0								uA	
At Rated DC Blocking Voltage @T <sub>A</sub> =125°C	IR	100								
Typical Junction Capacitance (Note 1)	Сл	70 30							pF	
Typical Thermal Resistance Junction to Ambient	Reja	75								°C/W
Maximum Reverse Recovery Time(Note 2)	Trr	50					75		ns	
Operating Temperature Range	Тл	-55 to +125								$^{\circ}$
/Storage Temperature Range	Тѕтѕ	-55 to +150								$^{\circ}$

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. Reverse Recovery Test Conditions: IF=0.5A, IR=1A, Irr=0.25A

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Average Forward Current (A)

IFSM, Peak Forward Surge Current (A)

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Fig. 1 Forward Current Derating Curve

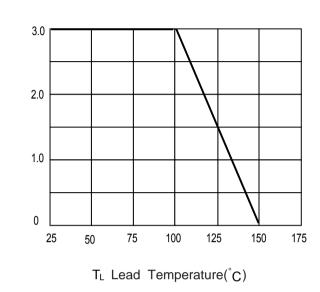
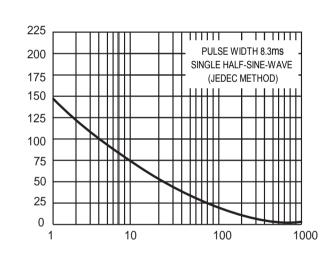
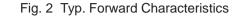
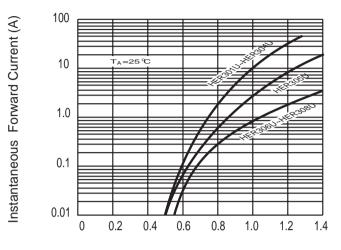


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current



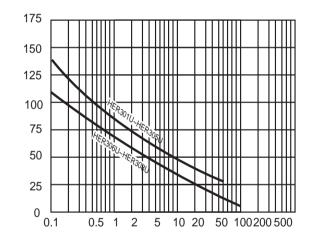
Number Of Cycles At 60 Hz





V<sub>F</sub>, Instantaneous Forward Voltage (V)

Fig.4 Typical Junction Capacitance



Capacitance, (pF)

V<sub>R</sub>, Reverse Voltage (V)

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