



HER3001 thru HER3007

High Efficient Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 3.0 Amperes

Features

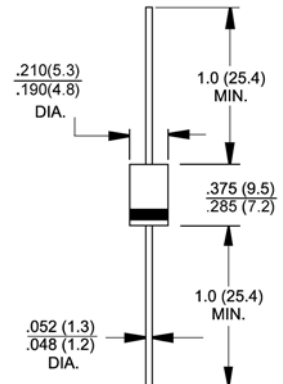
- ◆ Low cost
- ◆ Diffused junction
- ◆ Ultra fast switching for high efficiency
- ◆ Low reverse leakage current
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ The plastic material carries UL recognition 94V-0
- ◆ T_J is 150°C (Max.) and T_{STG} is 175°C (Max.) with PI glue



DO-201AD

Mechanical Data

- ◆ Case : JEDEC DO-201AD molded plastic
- ◆ Polarity : Color band denotes cathode
- ◆ Weight : 0.042 ounce, 1.19 grams
- ◆ Mounting position : Any



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Parameter	Symbols	HER 3001	HER 3002	HER 3003	HER 3004	HER 3005	HER 3006	HER 3007	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current @ $T_A=55^\circ\text{C}$	$I_{(AV)}$					3.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}					150.0			Amps
Maximum forward voltage at 3.0A DC	V_F	1.0		1.3		1.7		Volts	
Maximum DC reverse current at rated DC blocking voltage @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	I_R					5.0 100			μA μA
Maximum reverse recovery time (Note 1)	t_{tr}	50					75		nS
Typical junction capacitance (Note 2)	C_J	75					50		pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$					20		$^\circ\text{C/W}$	
Operating junction temperature range	T_J					-55 to +125		$^\circ\text{C}$	
Storage temperature range	T_{STG}					-55 to +150		$^\circ\text{C}$	

- Notes:**
1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Thermal Resistance Junction to Ambient.

RATINGS AND CHARACTERISTIC CURVES

