

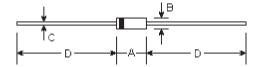
# **HER1001 THRU HER1007**

HIGH EFFICIENCY RECTIFIER
Reverse Voltage - 50 to 1000 Volts
Forward Current - 1.0 Ampere

#### **Features**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- 1.0 ampere operation at T<sub>A</sub>=55 <sup>o</sup>C with no thermal runway
- Low cost
- Ultrafast recovery time for high efficiency
- Low forward voltage
- Low leakage current
- High surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3Kg) tension.

## DO-41



### **Mechanical Data**

• Case: DO-41 molded plastic body

• Terminals: Plated axial leads, solderable per

MIL-STD-750, method 2026

• Polarity: Color band denotes cathode end

Mounting Position: AnyWeight: 0.012 ounce, 0.33 gram

DIMENSIONS										
DIM	inches		m	Note						
DIW	Min.	Max.	Min.	Max.	Note					
Α	0.165	0.205	4.2	5.2						
В	0.079	0.106	2.0	2.7	ф					
С	0.028	0.034	0.71	0.86	ф					
D	1.000	-	25.40	-						

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

Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	HER 1001	HER 1002	HER 1003	HER 1004	HER 1005	HER 1006	HER 1007	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at $\rm T_A = 55^\circ C$	I <sub>(AV)</sub>	1.0						Amp	
Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I <sub>FSM</sub>	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.0 1.7					Volts		
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^{\circ}C$	I <sub>R</sub>	10.0 50.0						μА	
Maximum reverse recovery time (Note 1)	T <sub>rr</sub>	50.0 100.0							nS
Typical junction capacitance (Note 2)	C <sub>J</sub>	17.0							ρF
Typical thermal resistance (Note 3)	R <sub>⊕JA</sub> R <sub>⊕JL</sub>	60.0 15.0						°C/W	
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150						$^{\circ}$	

#### Notes:

- (1) Reverse recovery test conditions: I<sub>E</sub>=0.5A, I<sub>B</sub>=1.0A, I<sub>E</sub>=0.25A
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts
- (3) Thermal resistance from junction to ambient and from junction to lead length 0.375" (9.5mm), P.C.B. mounted

### **RATINGS AND CHARACTERISTIC CURVES**

