GOOD-ARK

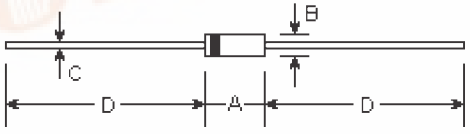
HER1001 THRU HER1007

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_A=55℃ 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℃/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:** Any
- **Weight:** 0.012 ounce, 0.33 gram

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.165	0.205	4.2	5.2	
B	0.079	0.106	2.0	2.7	ф
C	0.028	0.034	0.71	0.86	ф
D	1.000	-	25.40	-	

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ 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_{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 0.375" (9.5mm) lead length at T_A=55℃	$I_{(AV)}$	1.0							Amp
Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.0				1.7			Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25℃ / T_A=100℃	I_R	10.0 50.0							μ A
Maximum reverse recovery time (Note 1)	T_{rr}	50.0				100.0			nS
Typical junction capacitance (Note 2)	C_J	17.0							ρ F
Typical thermal resistance (Note 3)	$R_{\Theta JA}$ $R_{\Theta JL}$	60.0 15.0							℃/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							℃

Notes:
(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=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

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

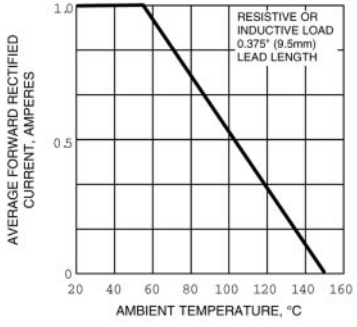


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

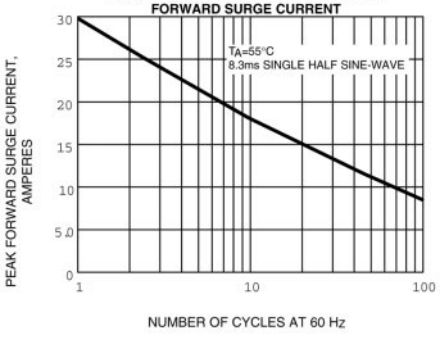


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

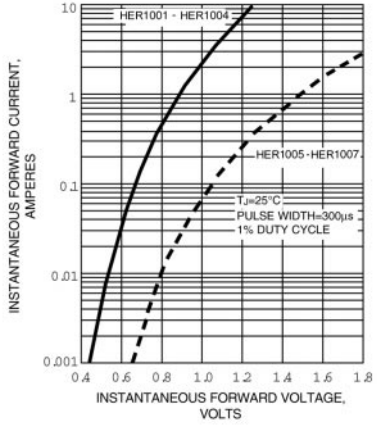


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

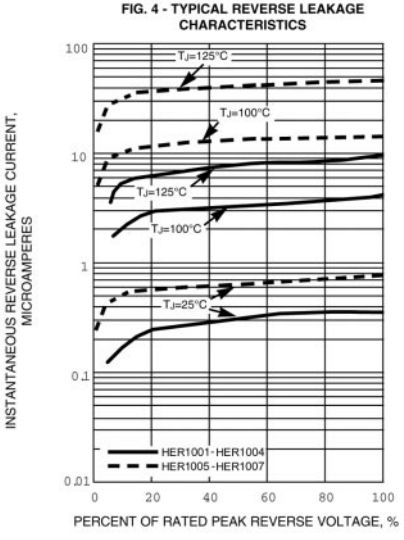


FIG. 5 - TYPICAL JUNCTION CAPACITANCE