HER2001 thru HER2007

High Efficient Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 2.0 Amperes

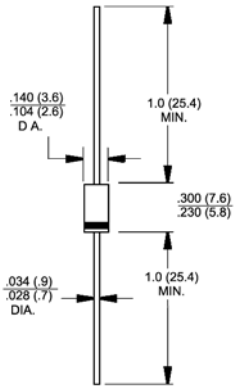
Features

- 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-204AC (DO-15)

Mechanical Data

- Case : JEDEC DO-204AC(DO-15) molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.014 ounce, 0.39 gram
- 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 2001	HER 2002	HER 2003	HER 2004	HER 2005	HER 2006	HER 2007	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°C	$I_{(AV)}$	2.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60.0							Amps
Maximum forward voltage at 2.0A DC	V_F	1.0			1.3	1.7			Volts
Maximum DC reverse current @ T_J=25°C at rated DC blocking voltage @ T_J=100°C	I_R	5.0 100							uA uA
Maximum reverse recovery time (Note 1)	t_{rr}	50				75			nS
Typical junction capacitance (Note 2)	C_J	50				30			pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	25							°C/W
Operating junction temperature range	T_J	-55 to +125							°C
Storage temperature range	T_{STG}	-55 to +150							°C

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

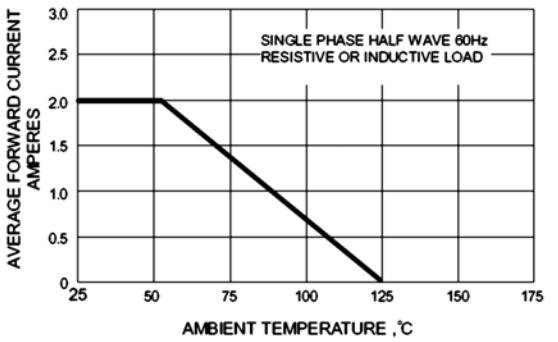


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

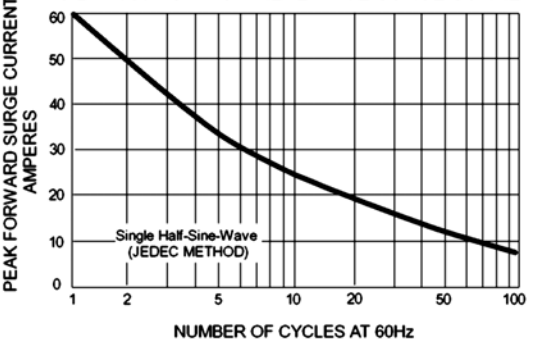


FIG.3 - TYPICAL JUNCTION CAPACITANCE

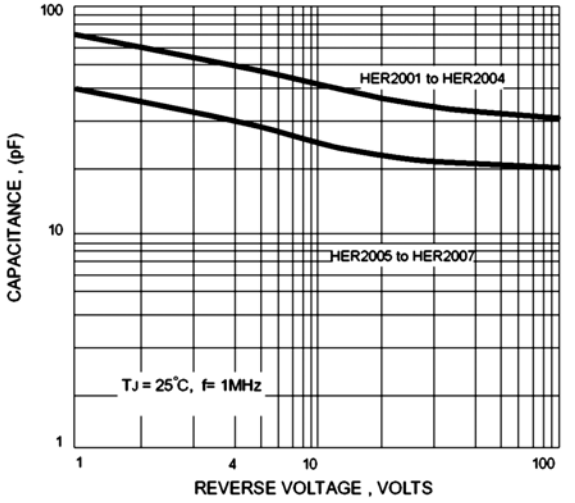


FIG.4 - TYPICAL FORWARD CHARACTERISTICS