



HER1001G thru HER1007G

Glass Passivated High Efficient Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 1.0 Ampere

Features

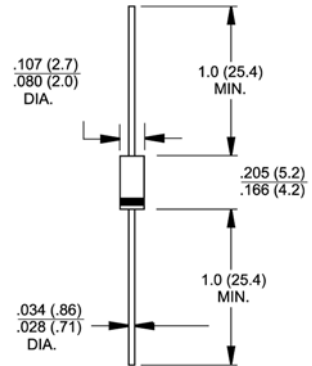
- ◆ Glass passivated chip
- ◆ Ultra fast switching for high efficiency
- ◆ Low reverse leakage current
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ Easily cleaned with Freon, Alcohol, Chlorothene and similar solvents
- ◆ Plastic material has UL flammability classification 94V-0



DO-204AL (DO-41)

Mechanical Data

- ◆ Case : JEDEC DO-204AL(DO-41) molded plastic
- ◆ Polarity : Color band denotes cathode
- ◆ Weight : 0.012 ounce, 0.335 gram
- ◆ Mounting position : Any



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%

Dimensions in inches and (millimeters)

Parameter	Symbols	HER 1001G	HER 1002G	HER 1003G	HER 1004G	HER 1005G	HER 1006G	HER 1007G	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 $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A (Note 2)	V_F	1.0			1.3	1.7			Volts
Maximum DC reverse current at rated DC blocking voltage @ $T_A=25^\circ\text{C}$ @ $T_A=100^\circ\text{C}$	I_R	5.0 100							μA
Maximum reverse recovery time $I_s=0.5\text{A}$, $I_r=1.0\text{A}$, $t_r=0.25\text{A}$	t_{rr}	50					75		nS
Typical junction capacitance at 4.0V, 1MHz	C_J	17							pF
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	60 15							$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

- Notes:**
1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length
 2. Pulse test: 300us pulse width, 1% duty cycle

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

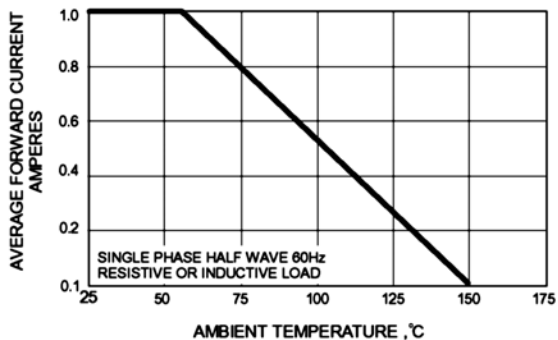


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

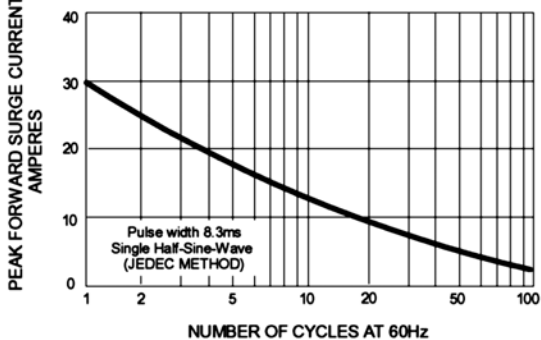


FIG.3 - TYPICAL JUNCTION CAPACITANCE

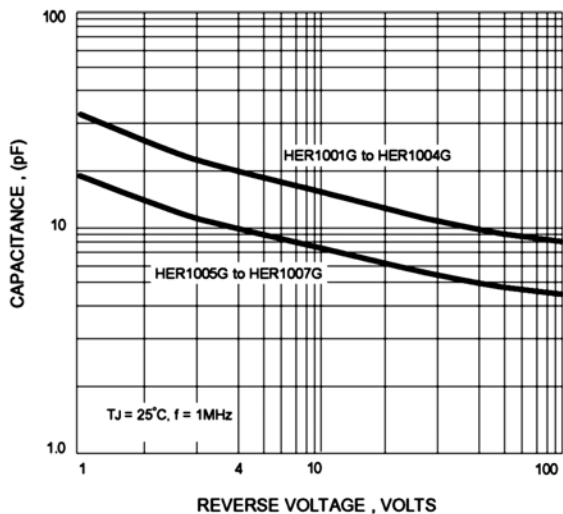


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

