



HER3001G thru HER3007G

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

Features

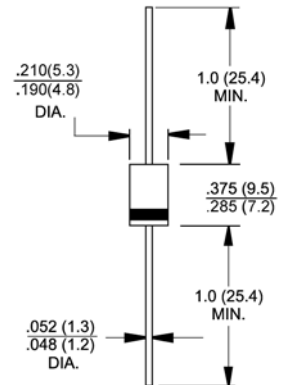
- ◆ Glass passivated chip
- ◆ Ultra fast switching for high efficiency
- ◆ Low reverse leakage current
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ Easily cleaned with Freon, Alcohol, Chlorothene and similar solvents
- ◆ Plastic material has UL flammability classification 94V-0



DO-201AD

Mechanical Data

- ◆ Case : JEDEC DO-201AD molded plastic
- ◆ Polarity : Color band denotes cathode
- ◆ Weight : 0.042 ounce, 1.195 grams
- ◆ 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%

Parameter	Symbols	HER 3001G	HER 3002G	HER 3003G	HER 3004G	HER 3005G	HER 3006G	HER 3007G	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}	125.0							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
Maximum reverse recovery time (Note 1)	t_{rr}	50					75		nS
Typical junction capacitance (Note 2)	C_J	60					30		pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	20							$^\circ\text{C/W}$
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. Test condition of T_m ; $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{FR}=0.25\text{A}$.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Thermal Resistance Junction to Ambient.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

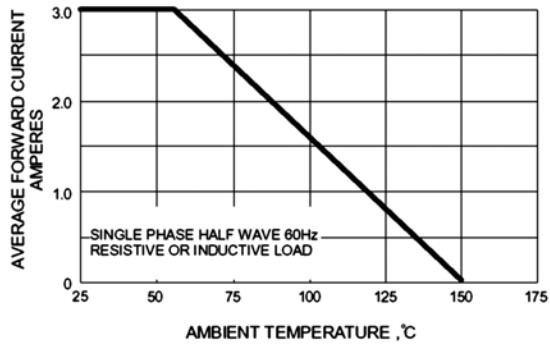


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

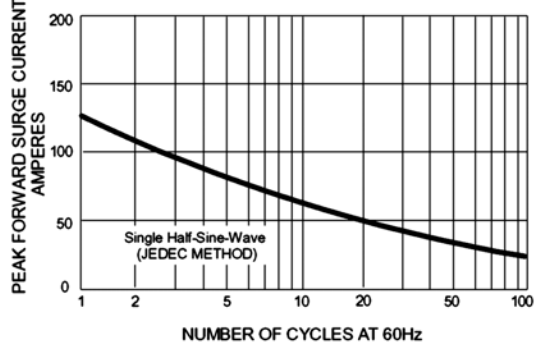


FIG.3 - TYPICAL JUNCTION CAPACITANCE

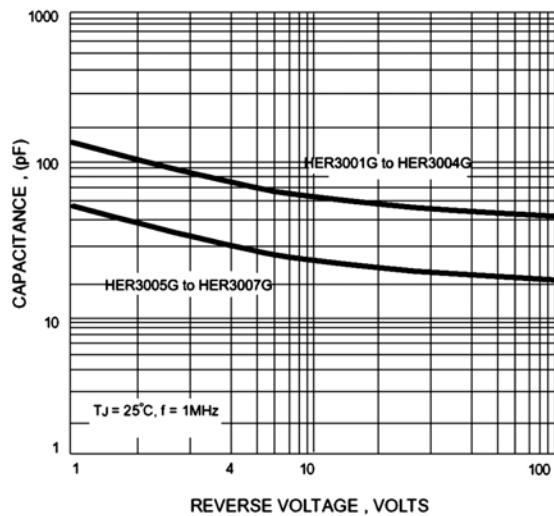


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

