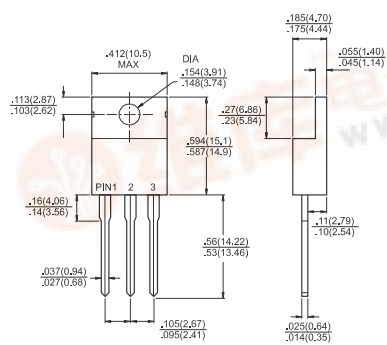


	HER1001G THRU HER1008G 10.0 AMPS. Glass Passivated High Efficient Rectifiers																																																																																																																																															
	Voltage Range 50 to 1000 Volts Current 10.0 Amperes																																																																																																																																															
Features - Low forward voltage drop - High current capability - High reliability - High surge current capability	TO-220  PIN 1  PIN 3  CASE PIN 2  Positive CT																																																																																																																																															
Mechanical Data - Case: TO-220 molded plastic - Epoxy: UL 94V-O rate flame retardant - Terminals: Leads solderable per MIL-STD-202, Method 208 guaranteed - Polarity: As marked - High temperature soldering guaranteed: 260°C/10 seconds .16", (4.06mm) from case. - Weight: 2.24 grams	Dimensions in inches and (millimeters)																																																																																																																																															
Maximum Ratings and Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%																																																																																																																																																
<table><tr><th>Type Number</th><th>Symbol</th><th>HER 1001G</th><th>HER 1002G</th><th>HER 1003G</th><th>HER 1004G</th><th>HER 1005G</th><th>HER 1006G</th><th>HER 1007G</th><th>HER 1008G</th><th>Units</th></tr><tr><td>Maximum Recurrent Peak Reverse Voltage</td><td>V_{RRM}</td><td>50</td><td>100</td><td>200</td><td>300</td><td>400</td><td>600</td><td>800</td><td>1000</td><td>V</td></tr><tr><td>Maximum RMS Voltage</td><td>V_{RMS}</td><td>35</td><td>70</td><td>140</td><td>210</td><td>280</td><td>420</td><td>560</td><td>700</td><td>V</td></tr><tr><td>Maximum DC Blocking Voltage</td><td>V_{DC}</td><td>50</td><td>100</td><td>200</td><td>300</td><td>400</td><td>600</td><td>800</td><td>1000</td><td>V</td></tr><tr><td>Maximum Average Forward Rectified Current @ T_C = 100°C</td><td>I_(AV)</td><td colspan="8">10.0</td><td>A</td></tr><tr><td>Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)</td><td>I_{FSM}</td><td colspan="8">125</td><td>A</td></tr><tr><td>Maximum Instantaneous Forward Voltage @ 5.0A</td><td>V_F</td><td colspan="2">1.0</td><td colspan="2">1.3</td><td colspan="2">1.7</td><td colspan="3">V</td></tr><tr><td>Maximum DC Reverse Current @ T_A=25°C at Rated DC Blocking Voltage @ T_A=125°C</td><td>I_R</td><td colspan="8">10.0 400</td><td>uA uA</td></tr><tr><td>Maximum Reverse Recovery Time (Note 1)</td><td>T_{rr}</td><td colspan="4">50</td><td colspan="4">80</td><td>nS</td></tr><tr><td>Typical Junction Capacitance (Note 2)</td><td>C_j</td><td colspan="4">60</td><td colspan="4">40</td><td>pF</td></tr><tr><td>Typical Thermal Resistance (Note 3)</td><td>Rθ_{JC}</td><td colspan="8">1.5</td><td>°C/W</td></tr><tr><td>Operating Temperature Range</td><td>T_J</td><td colspan="8">-65 to +150</td><td>°C</td></tr><tr><td>Storage Temperature Range</td><td>T_{STG}</td><td colspan="8">-65 to +150</td><td>°C</td></tr></table>	Type Number	Symbol	HER 1001G	HER 1002G	HER 1003G	HER 1004G	HER 1005G	HER 1006G	HER 1007G	HER 1008G	Units	Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	600	800	1000	V	Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	560	700	V	Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	800	1000	V	Maximum Average Forward Rectified Current @ T _C = 100°C	I _(AV)	10.0								A	Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	125								A	Maximum Instantaneous Forward Voltage @ 5.0A	V _F	1.0		1.3		1.7		V			Maximum DC Reverse Current @ T _A =25°C at Rated DC Blocking Voltage @ T _A =125°C	I _R	10.0 400								uA uA	Maximum Reverse Recovery Time (Note 1)	T _{rr}	50				80				nS	Typical Junction Capacitance (Note 2)	C _j	60				40				pF	Typical Thermal Resistance (Note 3)	Rθ _{JC}	1.5								°C/W	Operating Temperature Range	T _J	-65 to +150								°C	Storage Temperature Range	T _{STG}	-65 to +150								°C	
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Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

3. Mounted on Heatsink Size of 2 in x 3 in x 0.25 in Al-Plate.

RATINGS AND CHARACTERISTIC CURVES (HER1001G THRU HER1008G)

FIG. 1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

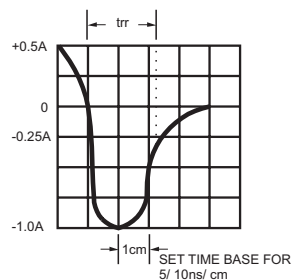
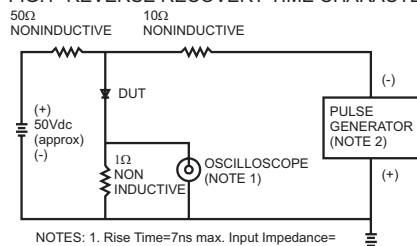


FIG. 2- MAXIMUM FORWARD CURRENT DERATING CURVE

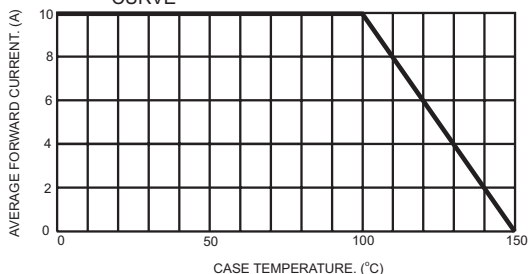


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

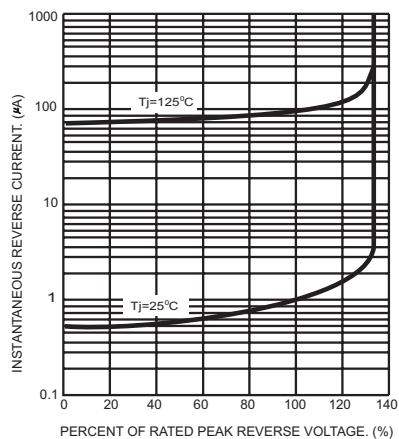


FIG. 4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

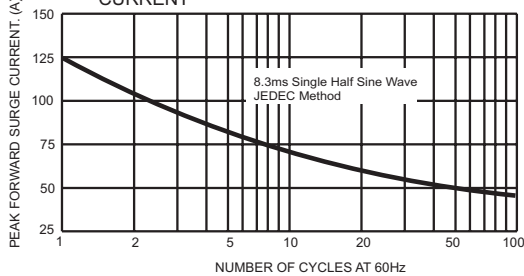


FIG. 6- TYPICAL FORWARD CHARACTERISTICS

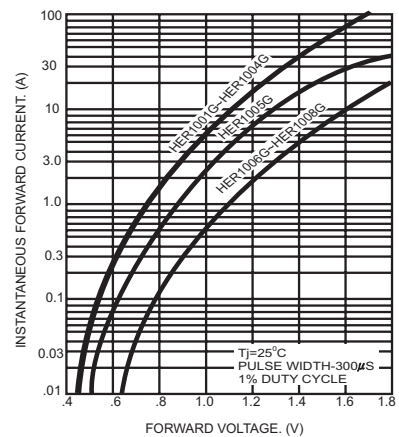


FIG. 5- TYPICAL JUNCTION CAPACITANCE

