

# HER101G THRU HER108G

## GLASS PASSIVATED HIGH EFFICIENCY RECTIFIERS

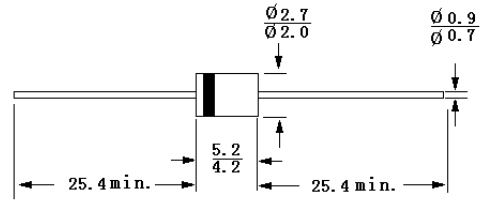
Reverse Voltage – 50 to 1000 Volts

Forward Current – 1.0 Ampere

DO-41

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound
- Ultra Fast switching for high efficiency



Dimensions in mm

### Mechanical Data

- Case: Molded plastic, DO-41
- Lead: MIL-STD-202 method 208 guaranteed
- Polarity: Band denotes cathode
- Mounting Position: Any

### Absolute Maximum Ratings and Characteristics

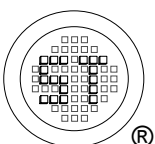
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.

Parameter	Symbols	HER 101G	HER 102G	HER 103G	HER 104G	HER 105G	HER 106G	HER 107G	HER 108G	Units
Maximum repetitive 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 at $T_A = 55^\circ\text{C}$	$I_O$	1.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30								A
Maximum instantaneous forward voltage at 1A DC	$V_F$	1		1.3		1.7			V	
Maximum reverse current at rated reverse voltage $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	$I_R$	10				500				$\mu\text{A}$
Maximum reverse recovery time <sup>1)</sup>	$t_{rr}$	50				75				ns
Typical junction capacitance <sup>2)</sup>	$C_J$	17								pF
Typical junction resistance <sup>3)</sup>	$R_{\theta JA}$	60								$^\circ\text{C/W}$
Operating and storage temperature range	$T_J, T_{Stg}$	-55 to +150								$^\circ\text{C}$

<sup>1)</sup> Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = -1\text{A}$ ,  $I_{RR} = -0.25\text{A}$ .

<sup>2)</sup> Measured at 1MHz and applied reverse voltage of 4 volts DC.

<sup>3)</sup> Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted.

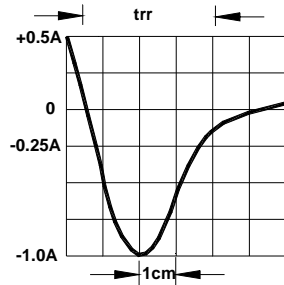
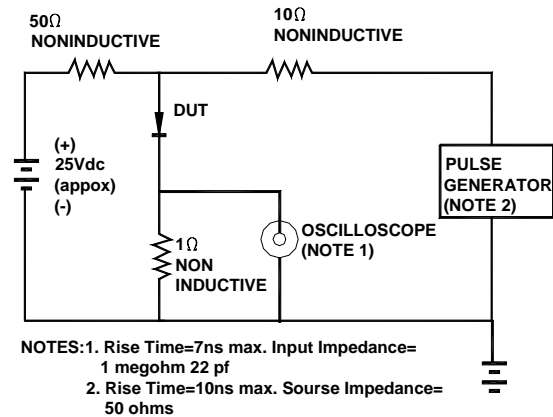


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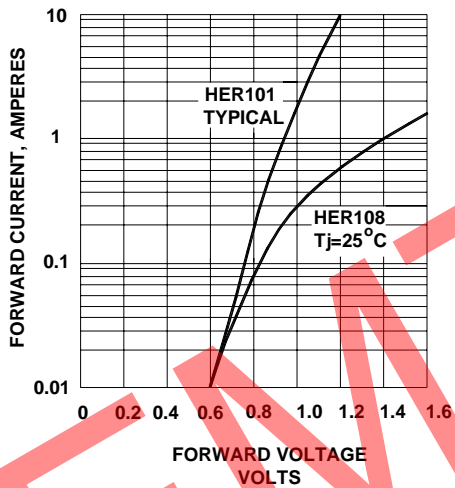
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## REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

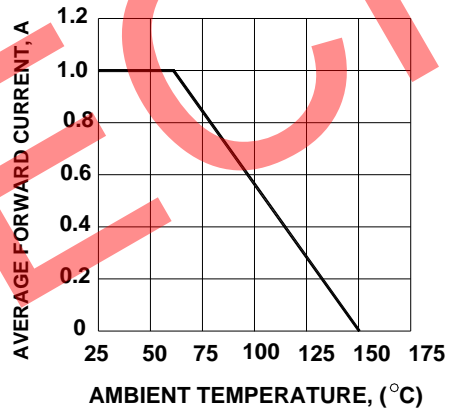


SET TIME BASE FOR 50ns/cm

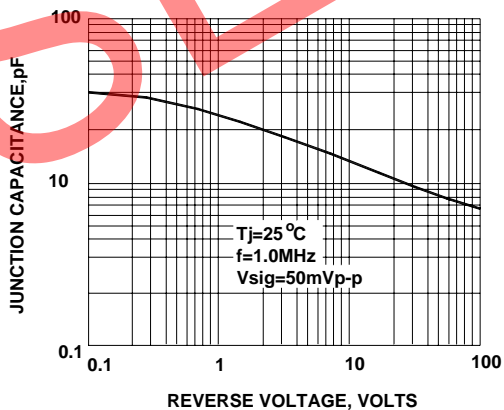
## FORWARD CHARACTERISTICS



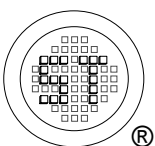
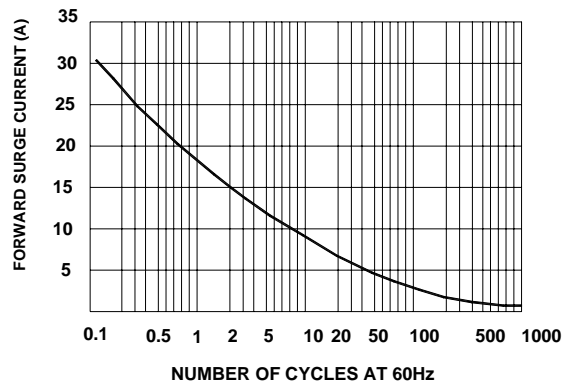
## FORWARD CURRENT DERATING CURVE



## TYPICAL JUNCTION CAPACITANCE



## PEAK FORWARD SURGE CURRENT



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