



# WEET Technology Company Limited

## High Efficiency Rectifiers

HER501G THRU HER508G

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

5.0 Ampere

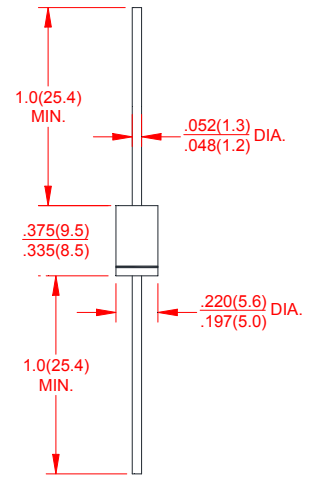
### Features

- High speed switching
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High reliability
- High temperature soldering guaranteed  
260°C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs (2.3kg) tension

### Mechanical Data

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.042ounce, 1.19 gram

### DO-201AD(DO-27)



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

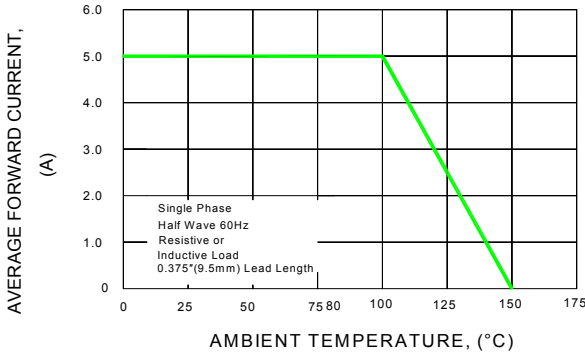
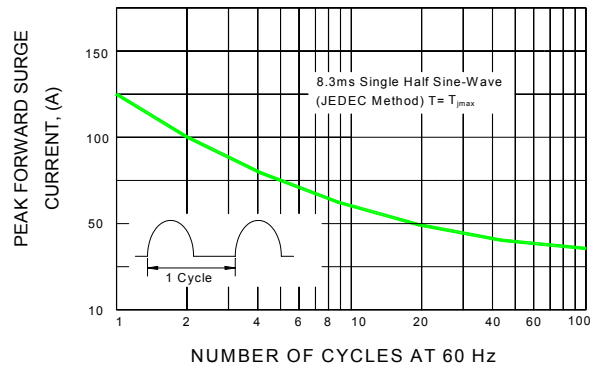
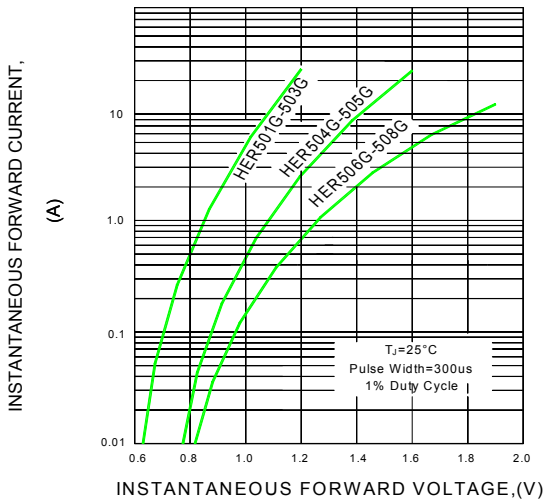
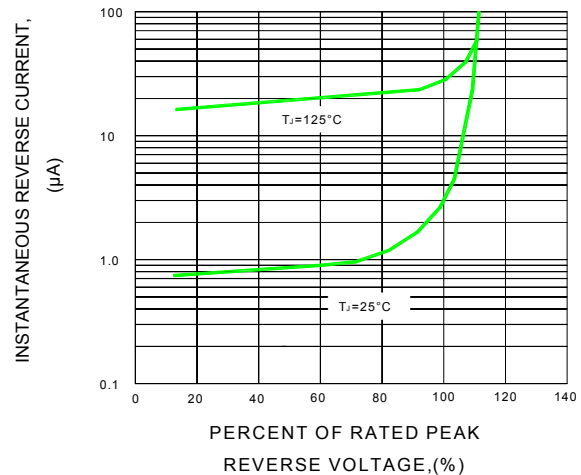
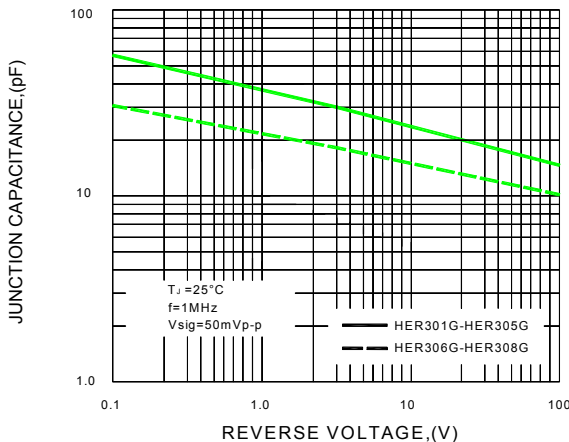
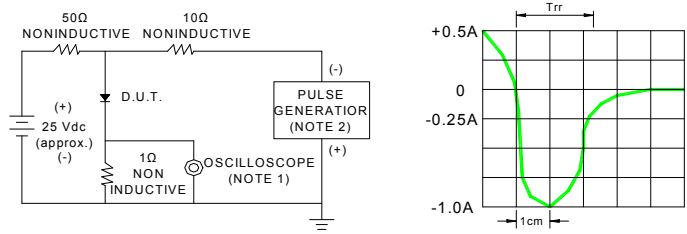
- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

TYPE NUMBER	SYMBOLS	HER 501G	HER 502G	HER 503G	HER 504G	HER 505G	HER 506G	HER 507G	HER 508G	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_A=55^\circ\text{C}$	$I_{(AV)}$	5.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	125								Amps
Maximum Instantaneous Forward Voltage at 5.0A	$V_F$	1.0		1.3		1.7				Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	5.0								$\mu\text{A}$
	$T_A = 100^\circ\text{C}$	100								
Maximum Reverse Recovery Time(NOTE1)	$T_{RR}$	50				75				nS
Typical Junction Capacitance (NOTE 2)	$C_J$	70				50				pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	30								$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150								$^\circ\text{C}$

#### 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 1.0MHz and applied reverse voltage of 4.0 Volts.
- 3.Thermal Resistance HERom Junction to Ambient at .375" (9.5mm) lead length, P.C. board mounted.

## Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

**FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE**

**FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**

**FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

**FIG.4-TYPICAL REVERSE CHARACTERISTICS**

**FIG.5-TYPICAL JUNCTION CAPACITANCE**

**FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**


NOTES : 1.Rise Time=7ns max. Input Impedance= 1 magohm. 22pF  
2.Rise time=10ns max. Source Impedance= 50 ohms

SET TIME BASE FOR 50/100ns/cm

Note: Specifications are subject to change without notice. For more detail and update, please visit our website.