



# WEET Technology Company Limited

## High Efficiency Rectifiers

**HER301 THRU HER308**

**VOLTAGE RANGE**

**50 to 1000 Volts**

**CURRENT**

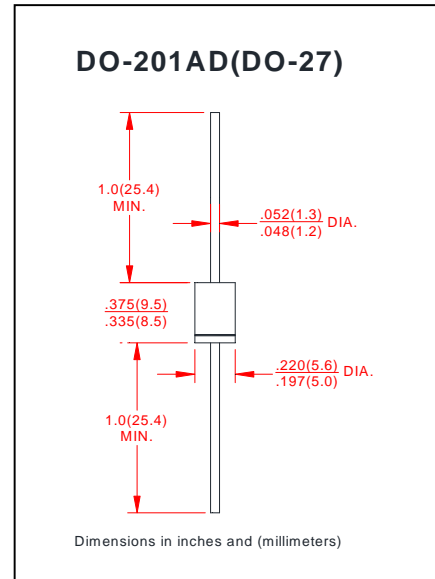
**3.0 Ampere**

### FEATURES

- Low power loss, high efficiency
- 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



### 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%

	SYMBOLS	HER 301	HER 302	HER 303	HER 304	HER 305	HER 306	HER 307	HER 308	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 $T_A=50^\circ\text{C}$	$I_{(AV)}$	3.0								Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150								Amps	
Maximum Instantaneous Forward Voltage at 3.0A	$V_F$	1.0			1.3		1.7			Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	10								$\mu\text{A}$	
	$T_A = 100^\circ\text{C}$	150									
Maximum Reverse Recovery Time (NOTE 1)	$T_{RR}$	50					75				nS
Typical Junction Capacitance (NOTE 2)	$C_J$	70					50				pF
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.

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



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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

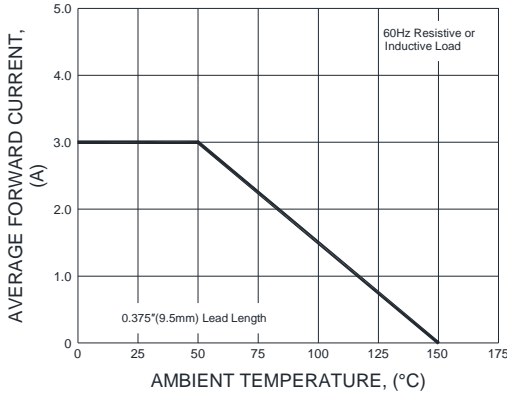


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

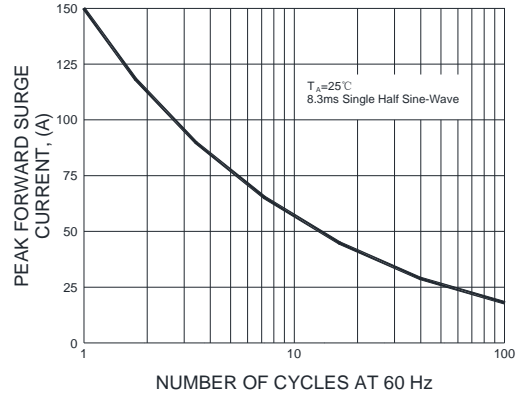


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

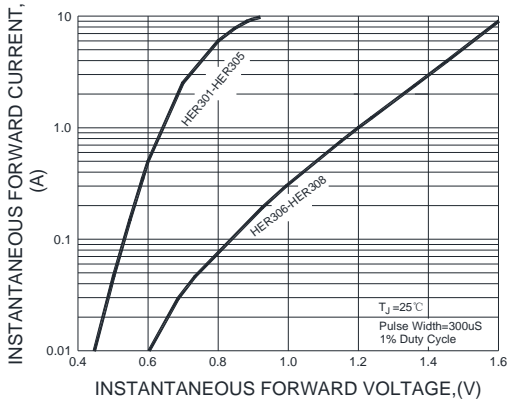


FIG.3-TYPICAL REVERSE CHARACTERISTICS

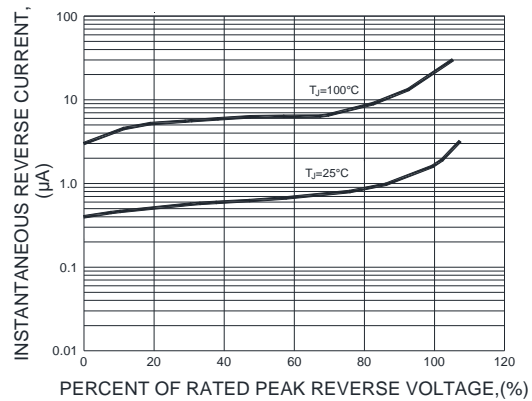


FIG.5-TYPICAL JUNCTION CAPACITANCE

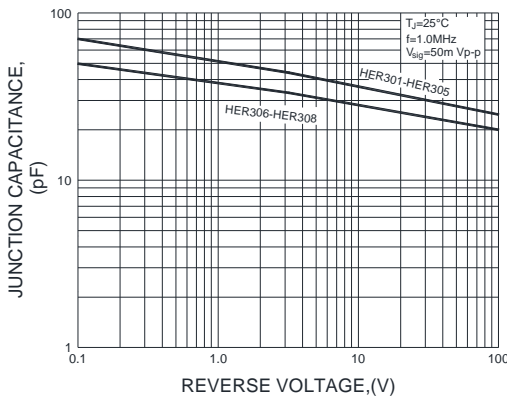
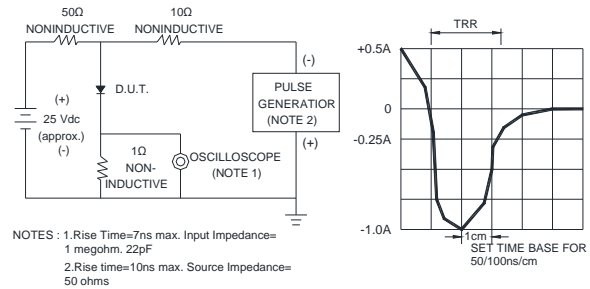


FIG.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



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