

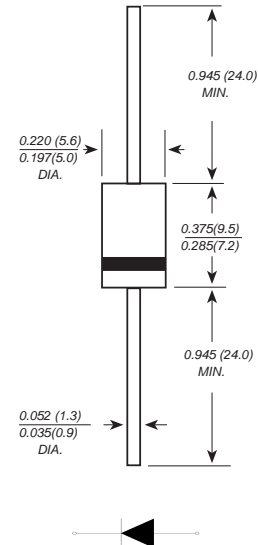
# HER301~HER308

## 3.0Amp High Efficiency Silicon Rectifiers

### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Open Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed  
250°C/10 seconds at terminals

### DO-27



Dimensions in inches and (millimeters)

### Mechanical Data

**Case** : Molded plastic body

**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity** : Polarity symbol marking on body

**Mounting Position** : Any

**Weight** : 0.0345 ounce, 0.98 grams

### 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 current derate by 20%.

Parameter	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	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 $T_L=100^\circ\text{C}$	$I_{(AV)}$	3.0								A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150.0								A	
Maximum instantaneous forward voltage at 3.0A	$V_F$	1.0			1.4		1.7			V	
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	10.0					500				$\mu\text{A}$
Maximum reverse recovery time (Note 1)	$T_{rr}$	50					75				ns
Typical junction capacitance (Note 2)	$C_J$	70.0								pF	
Typical thermal resistance	$R_{qJA}$	45.0								$^\circ\text{C}/\text{W}$	
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150								$^\circ\text{C}$	

**Note:** 1.Reverse recovery time test condition:  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{rr}=0.25\text{A}$   
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

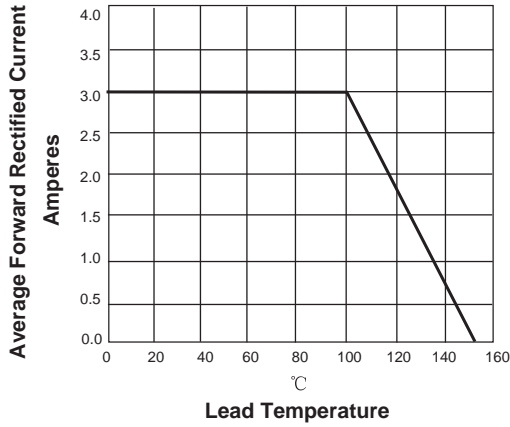


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

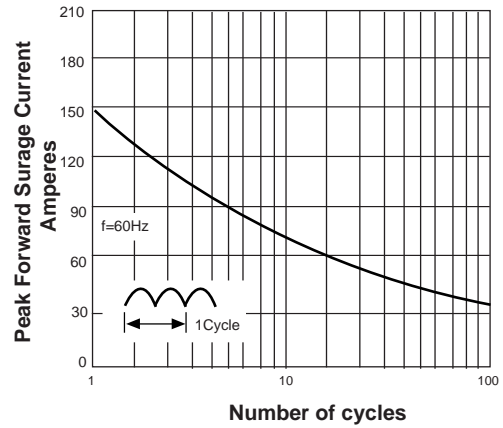


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

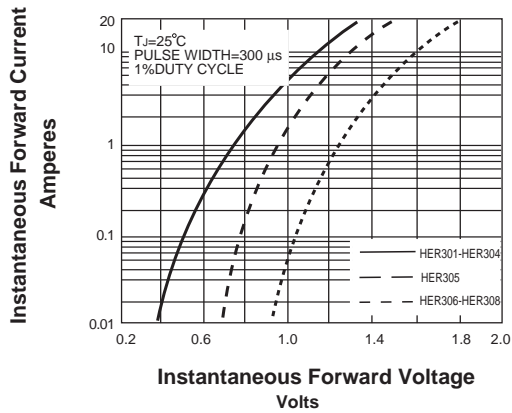


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

