

# PFS

## HIGH EFFICIENCY RECTIFIER

**HER301 THRU HER308**

**VOLTAGE RANGE  
CURRENT**

**50 to 800 Volts  
3.0Ampere**

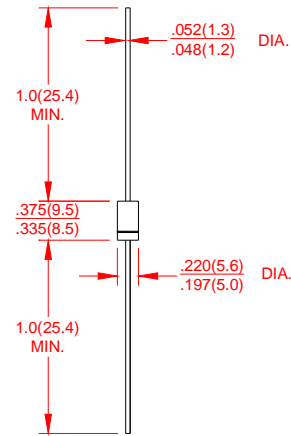
DO-27

**FEATURES**

- Low coat construction
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 secods/.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

**MECHANICAL DATA**

- Case: Transfer molded plastic
- Epoxy: UL94V-O 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 grams



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%

	SYMBOLS	HER 301	HER 302	HER 303	HER 304	HER 305	HER 306	HER 307	HER 308	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375”(9.5mm) lead length at T <sub>A</sub> = 50°C	I <sub>(AV)</sub>	3.0								Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	125								Amps
Maximum Instantaneous Forward Voltage @ 3.0A	V <sub>F</sub>	1.0		1.3		1.5		1.7		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	10								µA
		500								
Maximum Full Load Recovery Current,full cycle average 0.375”(9.5mm)lead length at TL=55°C	I <sub>R(AV)</sub>	150								µA
Maximum Reverse Recovery Time(NOTE 1)	trr	50				75				ns
Typical Thermal Resistance (NOTE 2)	C <sub>J</sub>	70				50				PF
Typical Thermal Resistance(NOTE 3)	R <sub>0JA</sub>	20								°C/W
Operating Junction Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	(-55 to +150)								°C

**Notes:**

- 1 Test Condition:IF=0.5A,IR=1.0A,IRR=0.25A
2. Measured at 1.0 MHz and applied reverse of 4.0 V
- 3 Thermal resistance from junction to ambient with .375”(9.5mm)lead length, P.C.B. mounted. .

## RATING AND CHARACTERISTIC CURVES HER301 THRU HER308

