

<b>HIGH EFFICIENCY (ULTRA FAST) RECTIFIERS</b>	REVERSE VOLTAGE - <b>50</b> to <b>1000</b> Volts FORWARD CURRENT - <b>3.0</b> Amperes
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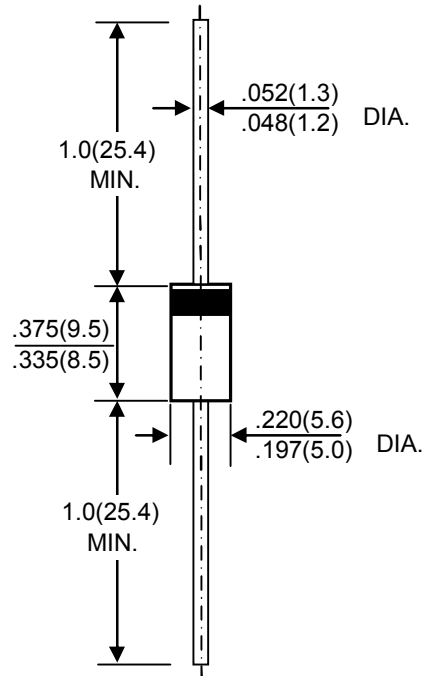
### FEATURES

- Low cost
- Diffused junction
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

### MECHANICAL DATA

- Case: JEDEC DO-27 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.04ounces , 1.1grams
- Mounting position: Any

### DO-27



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	HER301	HER302	HER303	HER304	HER305	HER306	HER307	HER308	UNIT
		UF3001	UF3002	UF3003	UF3004	UF3005	UF3006	UF3007	UF3008	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =55 °C	I <sub>(AV)</sub>	3.0								A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I <sub>FSM</sub>	150								A
Peak Forward Voltage at 3.0A DC	V <sub>F</sub>	1.0		1.3		1.7			V	
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>	5.0				100				µA
Maximum Reverse Recovery Time(Note 1)	T <sub>RR</sub>	50				75				nS
Typical Junction Capacitance (Note2)	C <sub>J</sub>	50				30				pF
Typical Thermal Resistance (Note3)	R <sub>θJA</sub>	20								°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +125								°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150								°C

NOTES: 1.Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A , I<sub>RR</sub>=0.25A

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3.Thermal resistance junction to ambient

FIG. 1 – FORWARD CURRENT DERATING CURVE

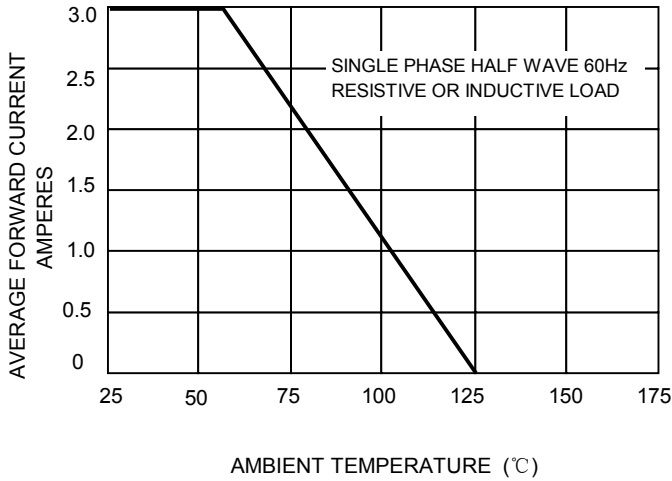


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

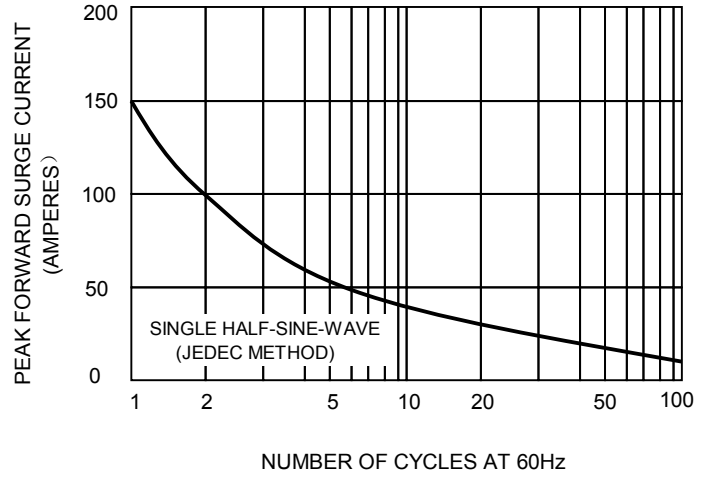


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

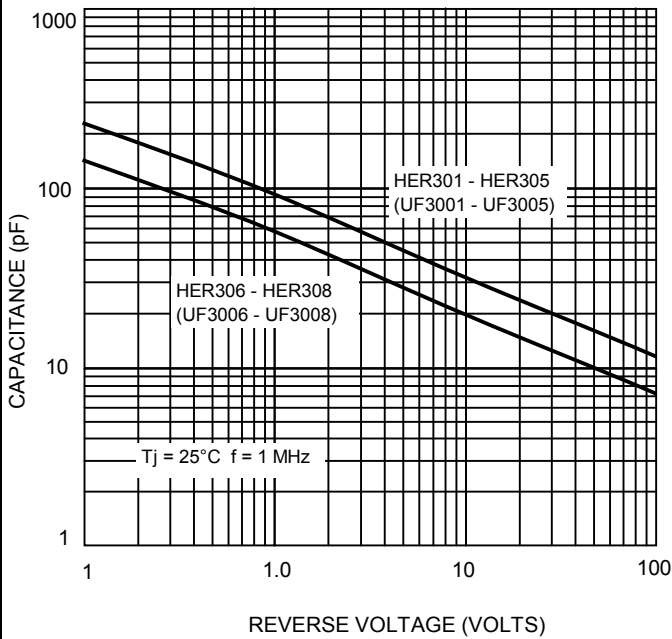


FIG. 4-TYPICAL FORWARD CHARACTERISTICS

