

HIGH EFFICIENCY RECTIFIERS

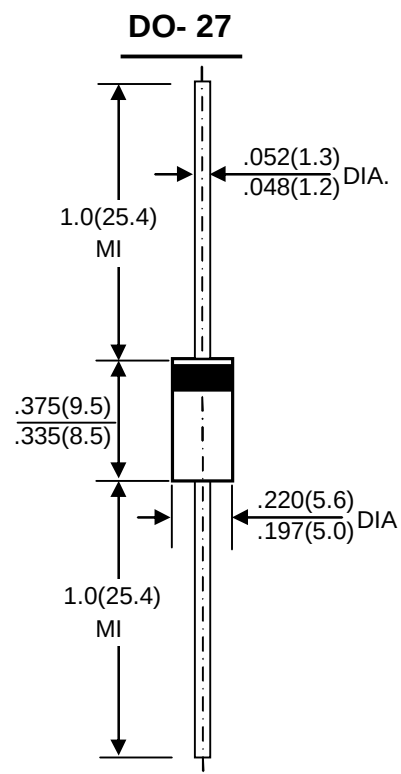
REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT - 5.0 Amperes

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: 0.04 ounces , 1.1 grams
- Mounting position: Any



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	HER501	HER502	HER503	HER504	HER505	HER506	HER507	HER508	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current @TA =55 °C	I(AV)	5.0								A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	IFSM	200								A
Peak Forward Voltage at 5.0A DC	VF	1.0				1.3	1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=100°C	IR	5.0 100								uA
Maximum Reverse Recovery Time (Note1)	TRR	50					75			nS
Typical Junction Capacitance (Note2)	CJ	75					50			pF
Typical Thermal Resistance (Note3)	RθJA	20								°C/W
Operating Temperature Range	TJ	-50 to +125								°C
Storage Temperature Range	TSTG	-50 to +150								°C

NOTES: 1.Measured with I_F=0.5A, I_R=1A , I_{RR}=0.25A

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

3.Thermal resistance junction to ambient

FIG. 1 –TYPICAL FORWARD
CURRENT DERATING CURVE

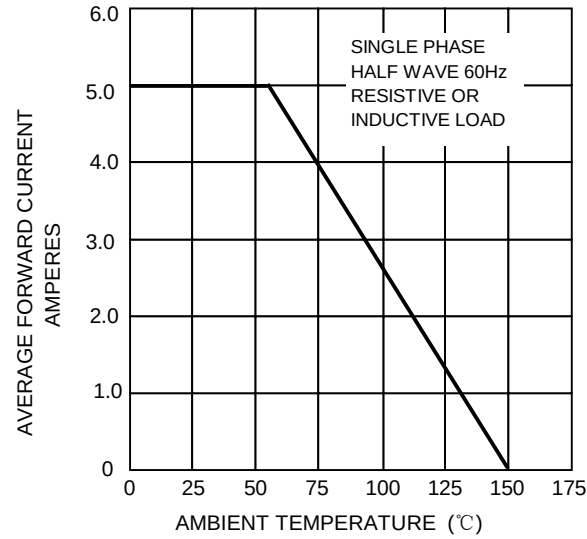


FIG.2 –TYPICAL REVERSE CHARACTERISTICS

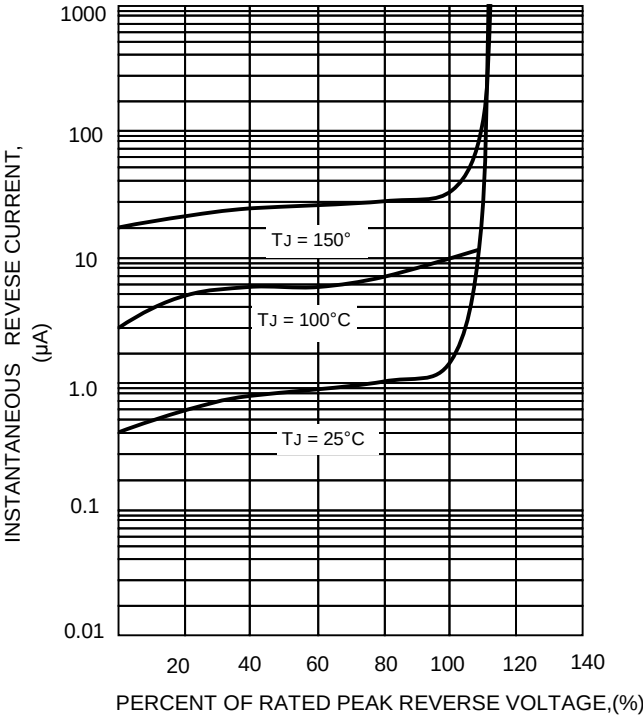


FIG. 4 – MAXIMUM NON-REPETITIVE
FORWARD SURGE CURRENT

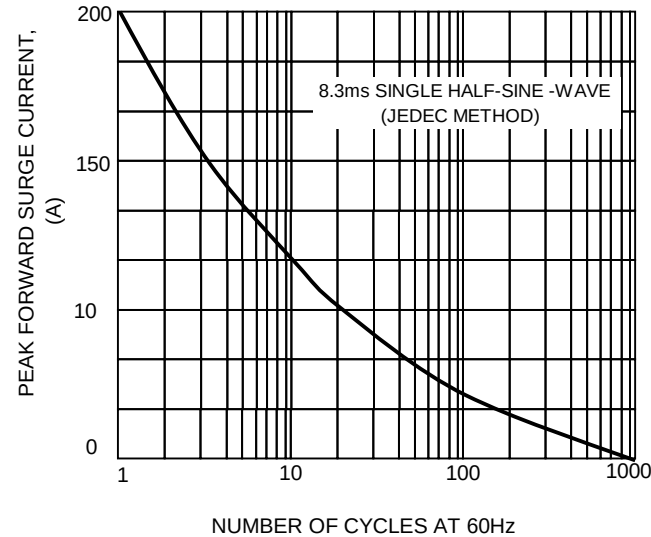


FIG.3-TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICS

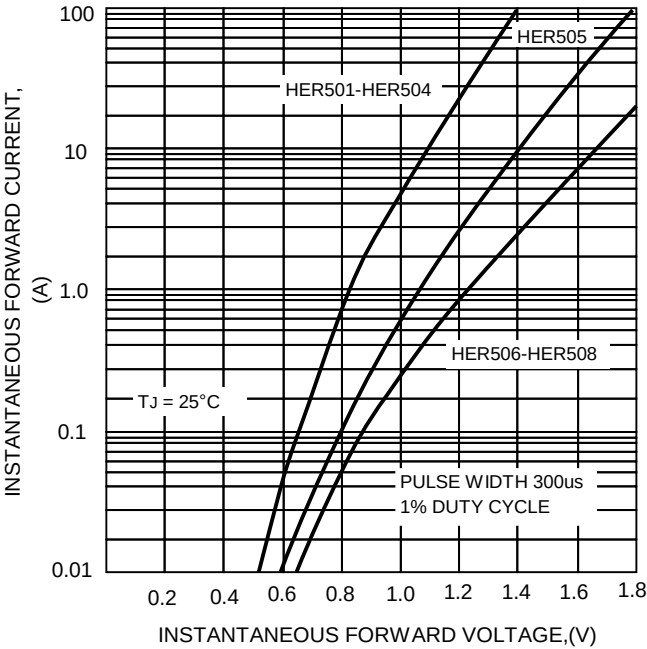


FIG.5 – TYPICAL JUNCTION CAPACITANCE

