

HER301 thru HER308

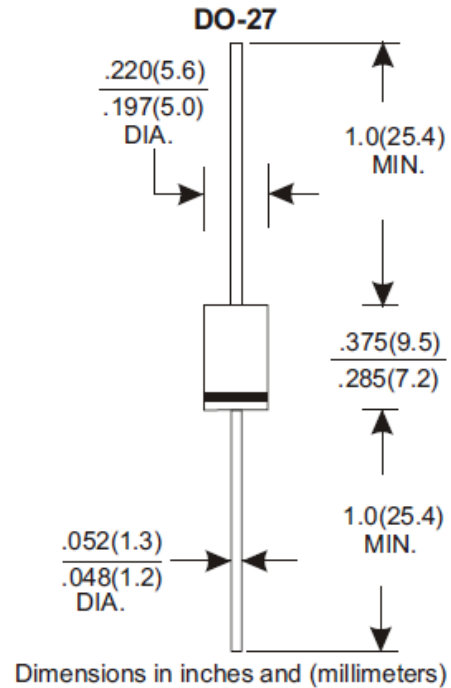
3.0 AMP HIGH EFFICIENCY RECTIFIERS

◆ Features

- » Low forward voltage drop
- » High current capability
- » High reliability
- » High surge current capability
- » High speed switching

◆ Mechanical Data

- » **Case:** Molded plastic
- » **Epoxy:** UL 94V-0 rate flame retardant
- » **Polarity:** Color band denotes cathode end
- » **Lead:** Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- » **Mounting Position:** Any
- » **Voltage:** 50V to 1000V
- » **Current :** 3 A



◆ Electrical Characteristic

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%.

TYPE NUMBER	HER301	HER302	HER303	HER304	HER305	HER306	HER307	HER308	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=55 C	3								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150								A
Maximum Instantaneous Forward Voltage at 3.0A	1		1.3		1.85				V
Maximum DC Reverse Current Ta=25 C at Rated DC Blocking Voltage Ta=100 C					5				µA
					100				µA
Maximum Reverse Recovery Time (Note 1)	50					75			nS
Typical Junction Capacitance (Note 2)	75								pF
Operating and Storage Temperature Range T _J , T _{STG}	-65 ~ 150								°C

Note: 1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

◆ Rating And Characteristic Curves

FIG.1-TYPICAL FORWARD

CHARACTERISTICS

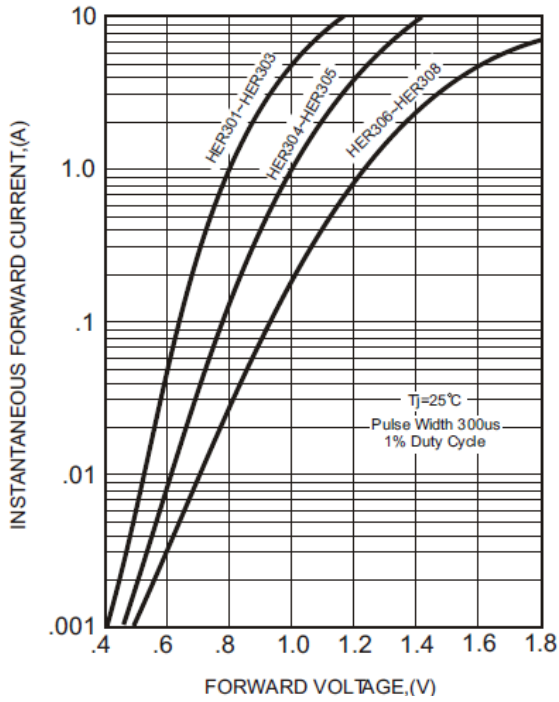


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

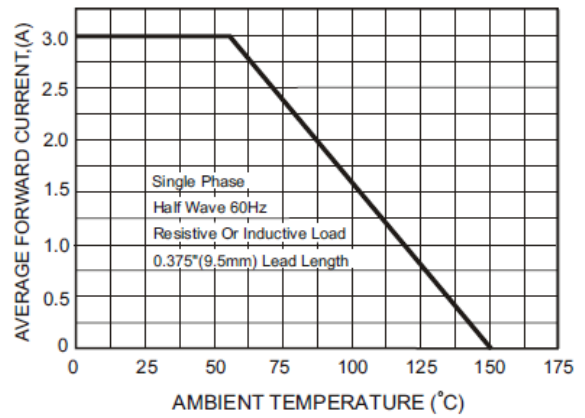


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

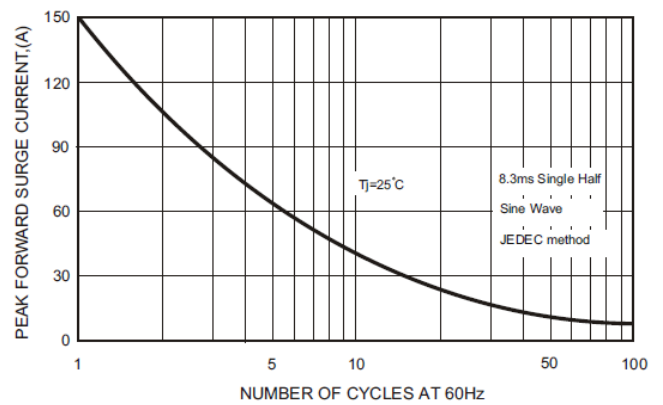
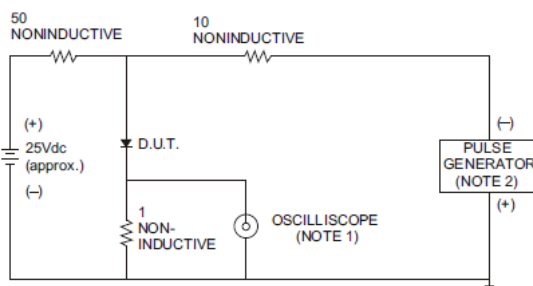


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

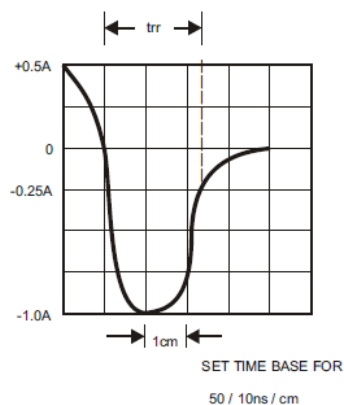


FIG.5-TYPICAL JUNCTION CAPACITANCE

