

# HER601 THRU HER607

6.0 AMP HIGH EFFICIENCY RECTIFIERS



## FEATURES

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

## MECHANICAL DATA

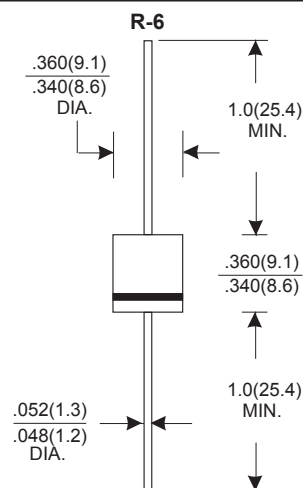
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.65 grams

## VOLTAGE RANGE

50 TO 600 Volts

## CURRENT

6.0 Amperes



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

TYPE NUMBER	HER601	HER602	HER603	HER604	HER605	HER606	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	600	V
Maximum RMS Voltage	35	70	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	200	300	400	600	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=50°C	6.0						A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	300						A
Maximum Instantaneous Forward Voltage at 6.0A	1.0		1.3		1.85		V
Maximum DC Reverse Current Ta=25°C	10.0						μA
at Rated DC Blocking Voltage Ta=100°C	200						μA
Maximum Reverse Recovery Time (Note 1)	60					100	nS
Typical Junction Capacitance (Note 2)	100						pF
Operating and Storage Temperature Range Tj, Tstg	-55 — +150						°C

### NOTES:

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 (HER601 THRU HER607)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

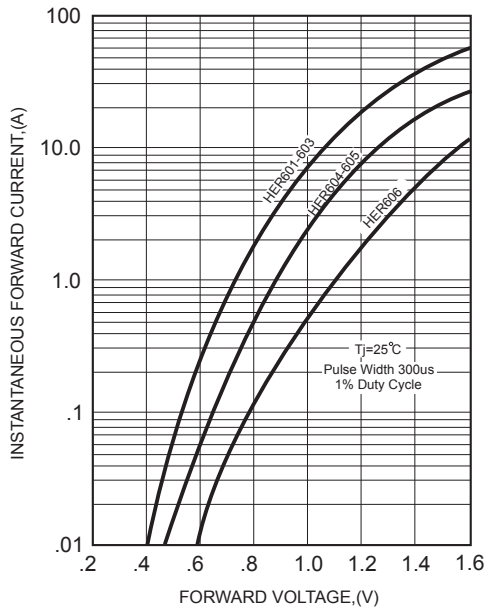
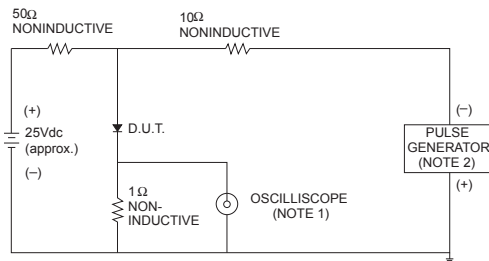


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time = 7ns max., Input Impedance = 1 megohm, 22pF.  
2. Rise Time = 10ns max., Source Impedance = 50 ohms.

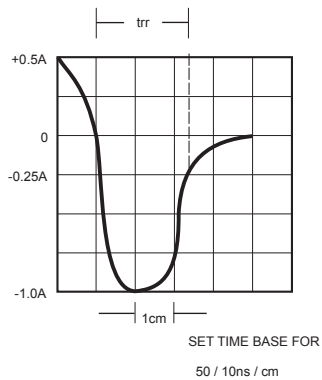


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

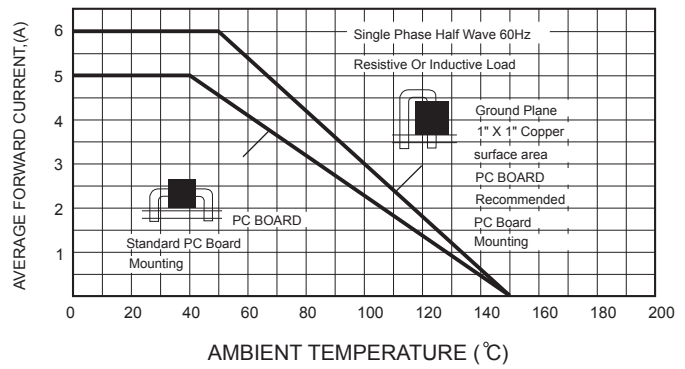


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

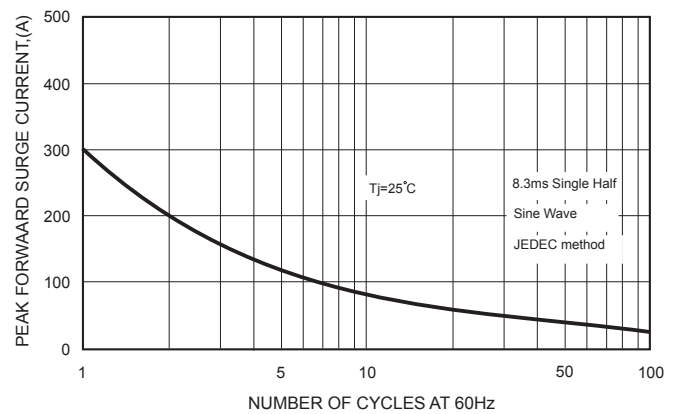


FIG.5-TYPICAL JUNCTION CAPACITANCE

