

# HER1601CT THRU HER1606CT



16.0 AMP HIGH EFFICIENCY RECTIFIERS



## FEATURES

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

## MECHANICAL DATA

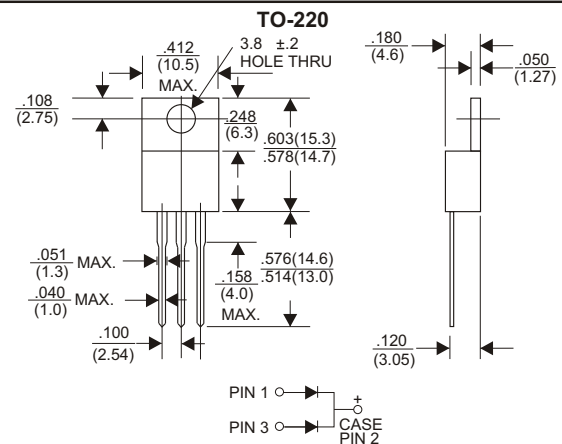
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: As Marked
- \* Mounting position: Any

## VOLTAGE RANGE

50 to 600 Volts

## CURRENT

16.0 Ampere



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	HER 1601CT	HER 1602CT	HER 1603CT	HER 1604CT	HER 1605CT	HER 1606CT	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 at T <sub>c</sub> =75°C	16.0						A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	200						A
Maximum Instantaneous Forward Voltage at 8.0A	1.0		1.3		1.85		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	10.0						μA
	200						μA
Maximum Reverse Recovery Time (Note 1)	60					100	nS
Typical Junction Capacitance (Note 2)	65						pF
Operating and Storage Temperature Range T <sub>J</sub> , T <sub>STG</sub>	-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 (HER1601CT THRU HER1606CT)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

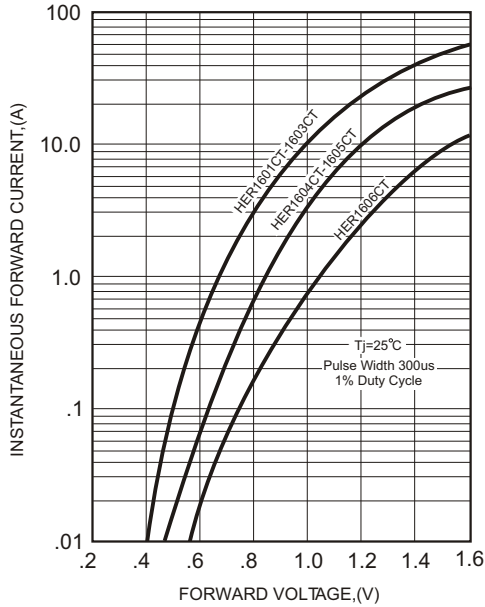


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

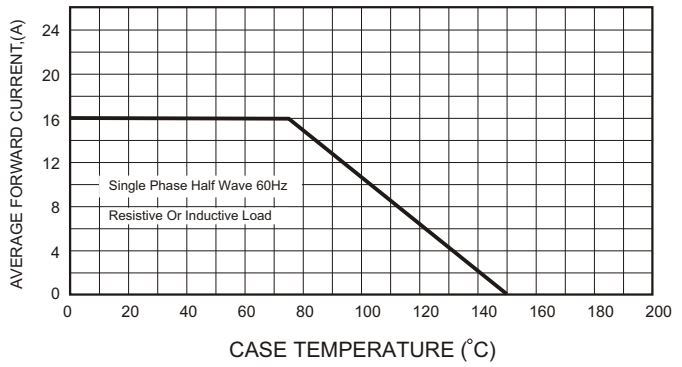
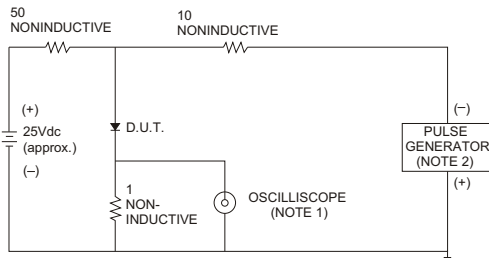


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

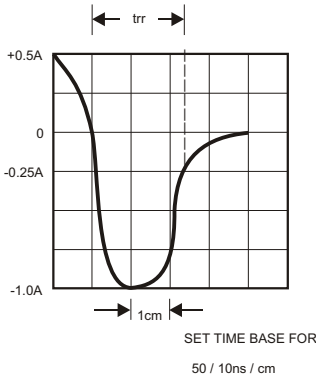


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

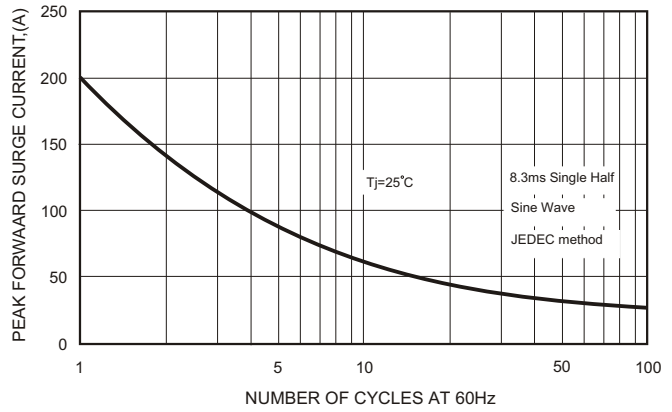


FIG.5-TYPICAL JUNCTION CAPACITANCE

