

HER301 THRU HER305**3.0 AMP HIGH EFFICIENCY RECTIFIERS****FEATURES**

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability

MECHANICAL DATA

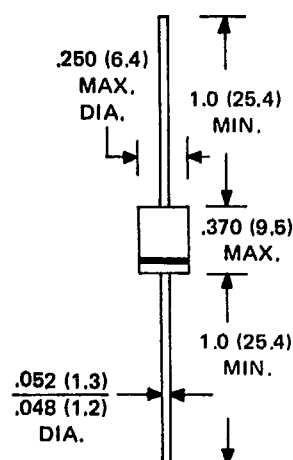
- * Case: Molded plastic
- * Epoxy: UL94V-0 rate flame retardant.
- * Lead: Axial lead solderable per MIL-STD-202, methode 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 1.1 grams

VOLTAGE RANGE

50 to 400 Volts

CURRENT

3.0 Amperes

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, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

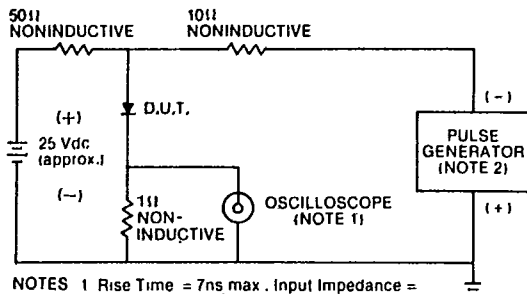
TYPE NUMBER	HER301	HER302	HER303	HER304	HER305	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	V
Maximum RMS Voltage	35	70	140	210	280	V
Maximum DC Blocking Voltage	50	100	200	300	400	V
Maximum Average Forward Current, .375" (9.5mm) Lead Length at T _A = 55°C	3.0					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150					A
Maximum Instantaneous Forward Voltage at 3.0 A.	1.0					V
Maximum DC Reverse Current T _A = 25°C	10.0					μA
at Rated DC Blocking Voltage T _A = 100°C	200					μA
Maximum Reverse Recovery Time (Note 1)	50					nS
Typical Junction Capacitance (Note 2)	80					pF
Operating and Storage Temperature Range T _J , T _{STG}	-65 — +150					°C

NOTES:1. Reverse Recovery Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A

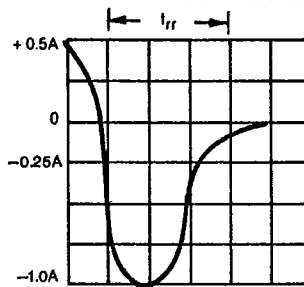
2. Measured at 1 MHz and applied reverse voltage of 4.0 v · D.C.

RATING AND CHARACTERISTIC CURVES (HER301 THRU HER305)

FIG. 1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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



AVERAGE FORWARD CURRENT, AMPERES

FIG. 2 - MAXIMUM AVERAGE FORWARD CURRENT RATING

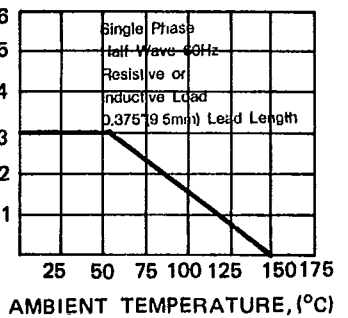


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

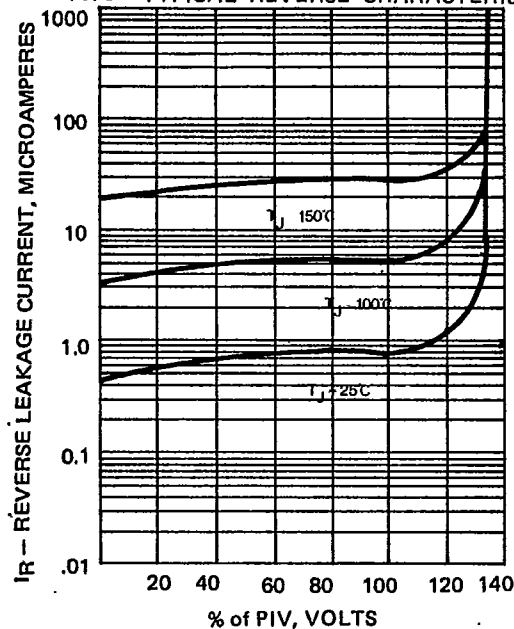


FIG. 5 - TYPICAL FORWARD CHARACTERISTICS

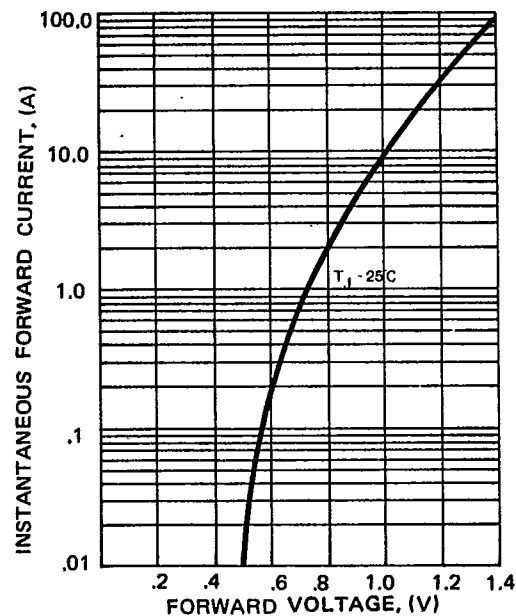


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

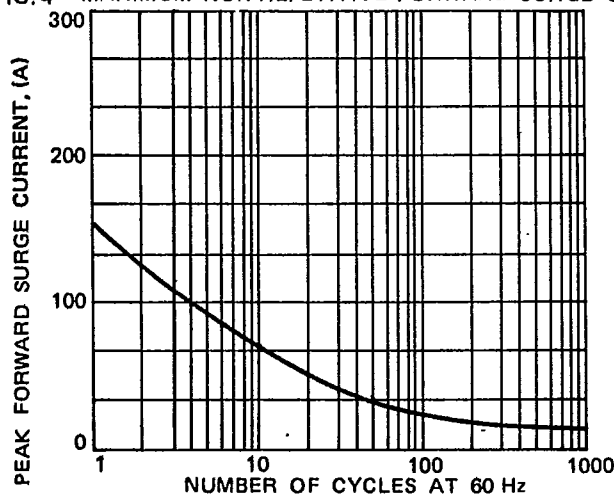


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

