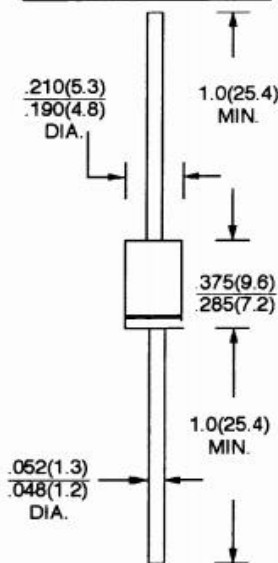




HER501 THRU HER508

5.0 AMPS. HIGH EFFICIENCY RECTIFIERS


FEATURES
* Low forward voltage drop * High current capability * High reliability * High surge current capability
MECHANICAL DATA
* Case: Molded plastic * Epoxy: UL – 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: 1.18 grams

VOLTAGE RANGE 50 to 1000 Volts CURRENT 5.0 Amperes
DO-201AD  Diagram showing dimensions in inches and millimeters for the DO-201AD package. The package is a cylindrical diode with axial leads. Dimensions include: lead diameter (.0210/.0190 inches / 5.3/4.8 mm), body diameter (.0375/.0285 inches / 9.6/7.2 mm), and lead length (1.0 inch / 25.4 mm minimum).
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	SYMBOLS	HER 501	HER 502	HER 503	HER 504	HER 505	HER 506	HER 507	HER 508	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	V
Maximum D.C Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm) lead length @ $T_A = 55^{\circ}\text{C}$ (Note 1)	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	150								A
Maximum Instantaneous Forward Voltage at 3.0A (Note 1)	V_F	1.0				1.3	1.7			V
Maximum D.C Reverse Current @ $T_A = 25^{\circ}\text{C}$ at Rated D.C Blocking Voltage @ $T_A = 100^{\circ}\text{C}$	I_R	10.0 200								μA μA
Maximum Reverse Recovery Time (Note 2)	T_{RR}	50					75			nS
Typical Junction Capacitance (Note 3)	C_J	75					55			pF
Operating Temperature Range	T_J	- 65 to + 125								$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 150								$^{\circ}\text{C}$

NOTES: 1. Mounted on P.C.B With $1.1 \times 1.1"$ ($30 \times 30\text{mm}$) copper pads.
2. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.
3. Measured at 1 MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (HER501 THRU HER508)

FIG. 1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

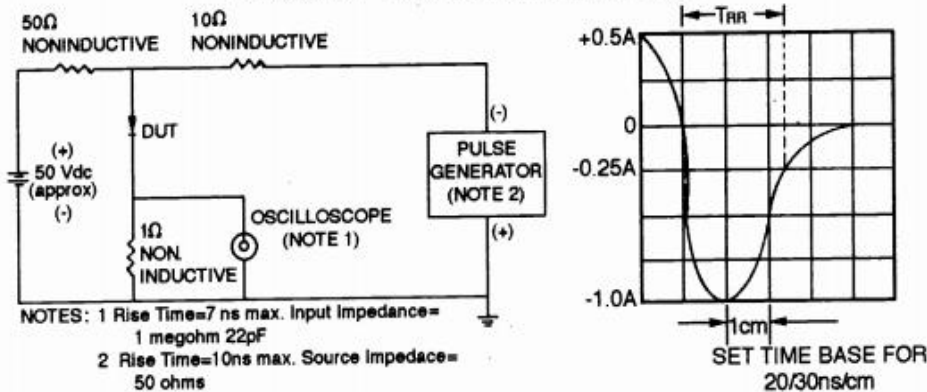


FIG. 2 – TYPICAL FORWARD CURRENT DERATING CURVE

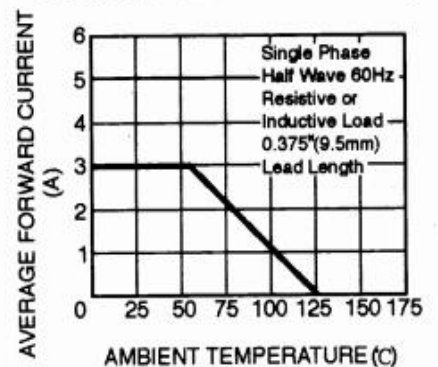




FIG. 3 – TYPICAL REVERSE CHARACTERISTICS

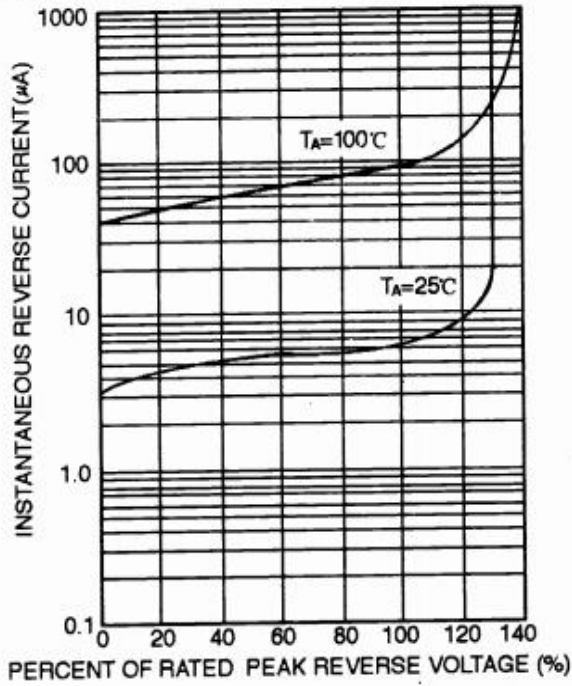


FIG. 4 – TYPICAL FORWARD CHARACTERISTICS

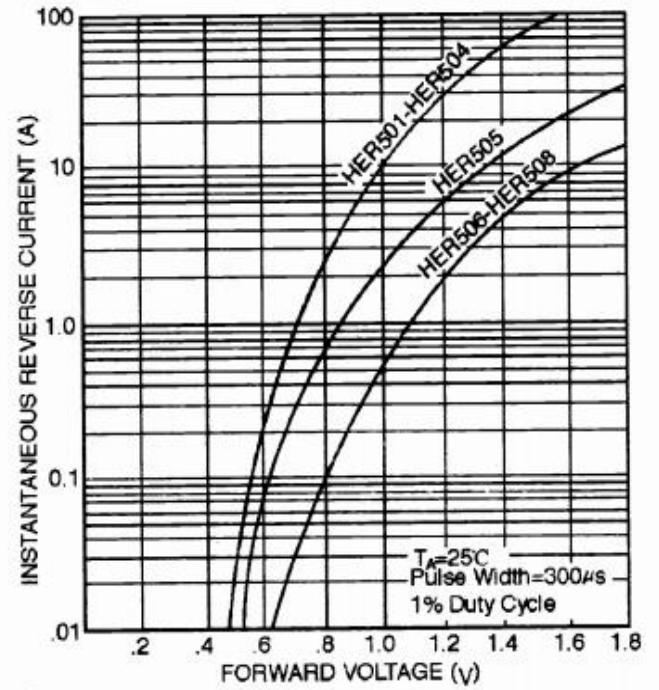


FIG. 5 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

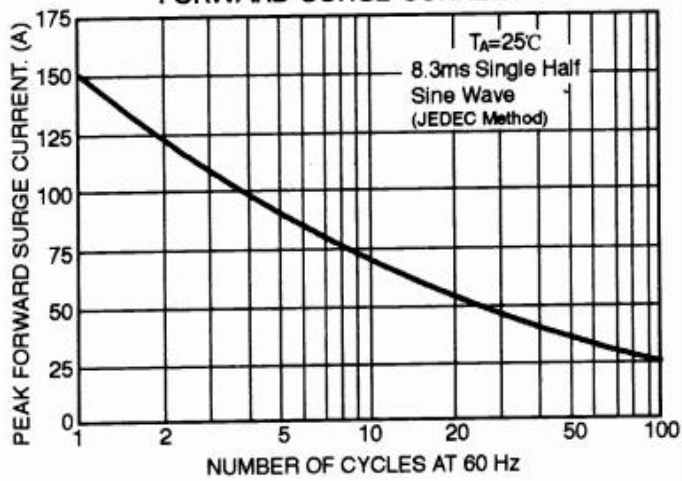


FIG. 6 – TYPICAL JUNCTION CAPACITANCE

