



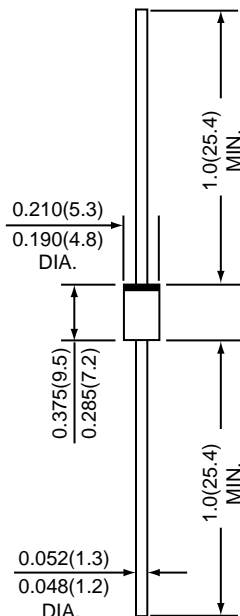
# HER301 THRU HER308

## HIGH EFFICIENCY RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 3.0 Amperes

DO-201AD



\*Dimensions in inches and (millimeters)



### FEATURES

- \* The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- \* Low power loss, high efficiency
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High speed switching
- \* High current surge
- \* High reliability

### MECHANICAL DATA

**Case :** JEDEC DO-201AD molded plastic

**Terminals :** Plated axial leads , solderable per MIL-STD-750, Method 2026

**Polarity :** Color band denotes cathode end

**Mounting Position :** Any

**Weight :** 0.04 ounces , 1.12 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

<i>Ratings at 25 °C ambient temperature unless otherwise specified.</i>	SYMBOLS	HER301	HER302	HER303	HER304	HER305	HER306	HER307	HER308	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	300	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	210	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	300	400	600	800	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at TL=50°C	I(AV)	3.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	200					150			Amps
Maximum instantaneous forward voltage at 3.0 A	VF	1.0		1.3		1.7			Volts	
Maximum Full Load Reverse Current Full Cycle average, 0.375" (9.5mm) lead length at TL=55°C	IR(AV)	150								uA
Maximum DC reverse current at rated DC blocking voltage TA=25°C	IR	10								uA
Maximum reverse recovery time (NOTE 1)	trr	50					75			nS
Typical junction capacitance (NOTE 2)	CJ	70					50			pF
Operating junction and storage temperature range	TJ,TSTG	-65 to +150								°C

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A  
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

# RATINGS AND CHARACTERISTIC CURVES HER301 THRU HER308

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

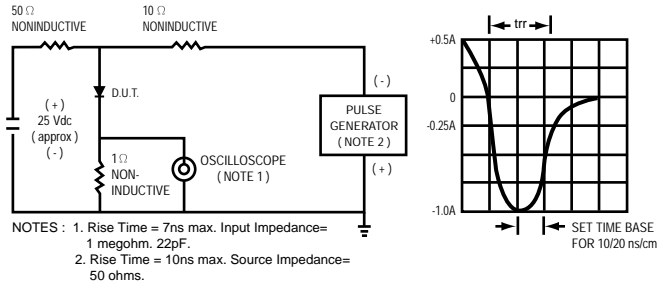


FIG.2 - FORWARD CURRENT DERATING CURVE

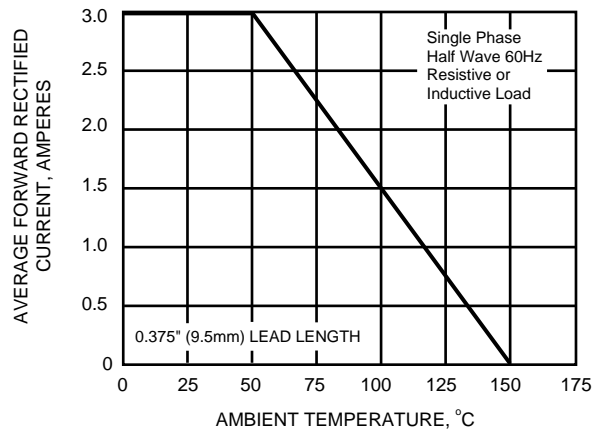


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

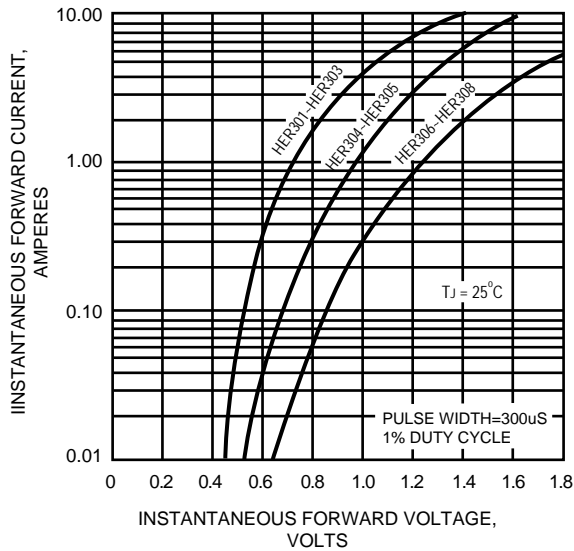


FIG.4 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

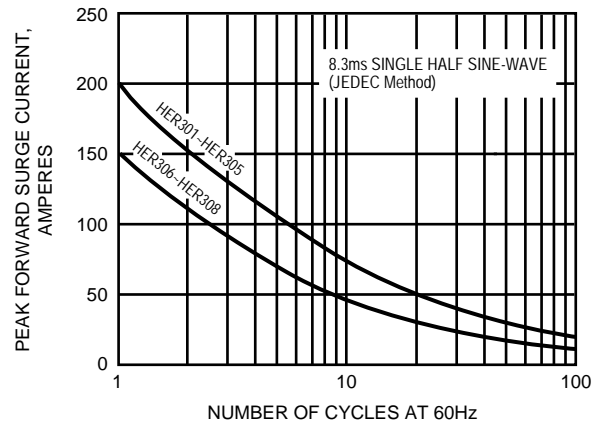


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

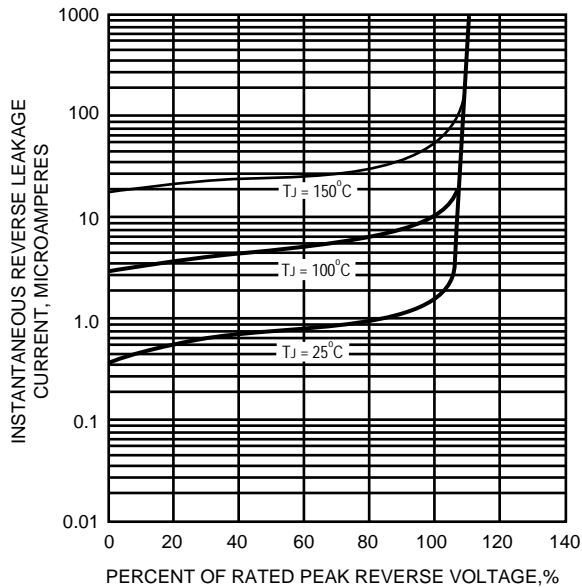


FIG.6 - TYPICAL JUNCTION CAPACITANCE

