

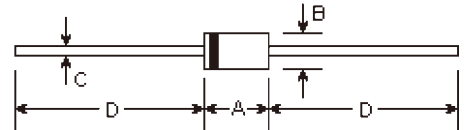


**High Efficiency Rectifiers
Reverse Voltage 50V~1000 Volts , Forward Current 5.0 Amperes**

Features

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

DO-201AD



Mechanical Data

- Cases: Molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 250°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension

DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.283	0.374	7.20	9.50	
B	0.189	0.208	4.80	5.30	ϕ
C	0.048	0.051	1.20	1.30	ϕ
D	1.000	-	25.40	-	

Maximum Ratings and Electrical Characteristics

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

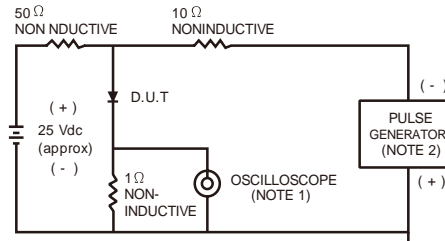
Type Number		HER501	HER502	HER503	HER504	HER505	HER506	HER507	HER508	UNITS
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @TA = 55°C	IF(AV)	5.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	150								A
Maximum Instantaneous Forward Voltage @ IF=5A	VF	1.0			1.3		1.7			V
Maximum DC Reverse Current @ TA = 25°C at Rated DC Blocking Voltage @ TA = 100°C	IR	10.0 100								uA uA
Maximum Reverse Recovery Time (Note 1)	TRR	50				75				nS
Typical Junction Capacitance (Note 2)	CJ	75				50				pF
Operating Temperature Range	TJ	-55 to +150								°C
Storage Temperature Range	TSTG	-55 to +150								°C

Notes:

- (1) Test conditions: $I_F=0.5A$, $I_R=1.0A$, $I_T=0.25A$
- (2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (HER501 THRU HER508)

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



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

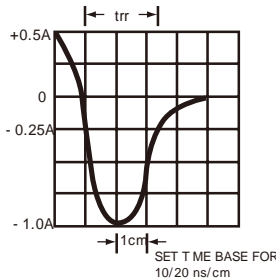


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

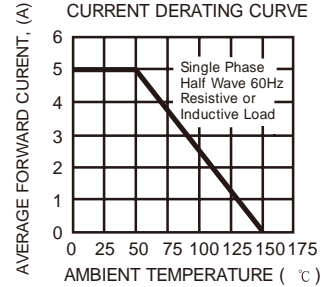


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

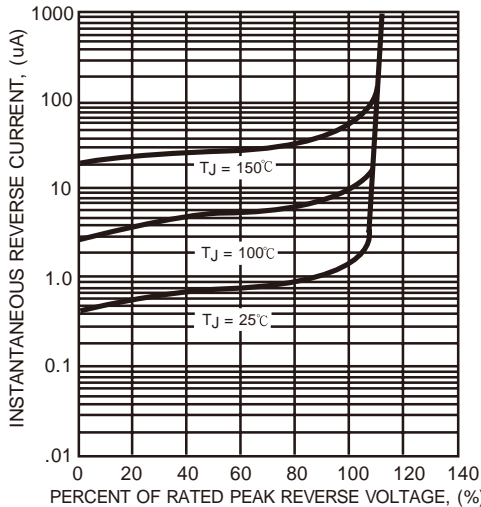


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

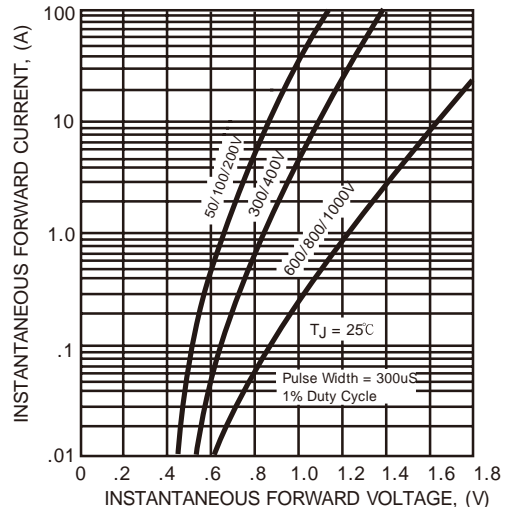


FIG. 5 - MAXIMUM NON- REPETITIVE FORWARD SURGE CURRENT

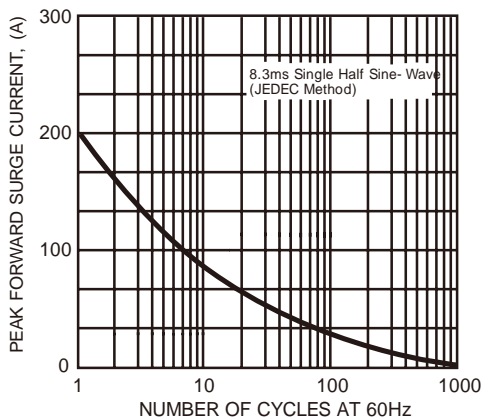


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

