

**HIGH EFFICIENCY RECTIFIERS**

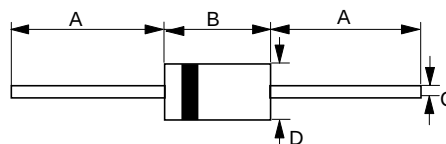
REVERSE VOLTAGE - **50 to 1000** Volts
 FORWARD CURRENT - **5.0** Ampere

FEATURES

- Plastic passivated chip
- Super fast switching for high efficiency
- High current capability
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

MECHANICAL DATA

- Case : Molded plastic
- Polarity : Indicated by cathode band
- Weight : 0.04 ounces, 1.2 grams

DO-201AD

DO-201AD		
Dim.	Min.	Max.
A	25.4	-
B	7.20	9.50
C	1.20 Ø	1.30 Ø
D	4.80 Ø	5.30 Ø
Dimensions in millimeters		

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%

CHARACTERISTICS	SYMBOL	HER 501	HER 502	HER 503	HER 504	HER 505	HER 506	HER 507	HER 508	UNIT
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 DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current @TL =75 C	I(AV)	5.0								A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I _{FSM}	200								A
Maximum forward Voltage at 5.0A DC	V _F	1.0			1.3		1.70			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ =25°C @TJ =100°C	I _R	10.0 100								uA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	50					75			ns
Typical Junction Capacitance (Note 2)	C _J	75								pF
Typical Thermal Resistance (Note 3)	RθJL	30								°C/W
Operating Temperature Range	T _J	-55 to +150								°C
Storage Temperature Range	T _{STG}	-55 to +150								°C

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

2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3.Thermal Resistance junction to Lead.



RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

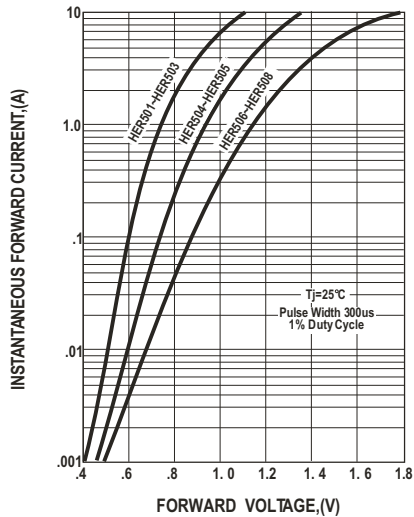


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

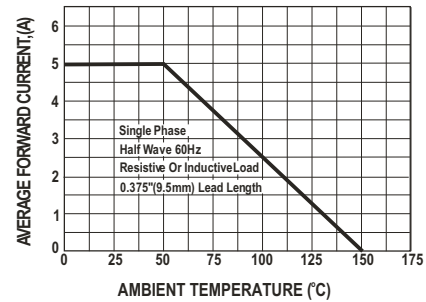
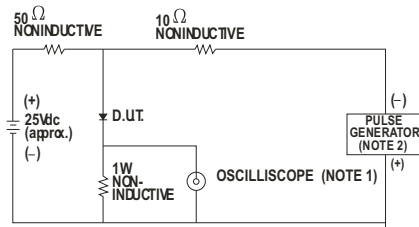


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES:

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

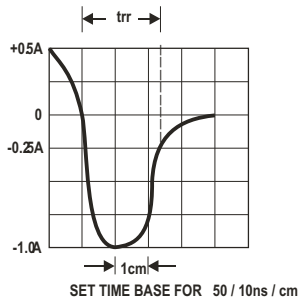


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

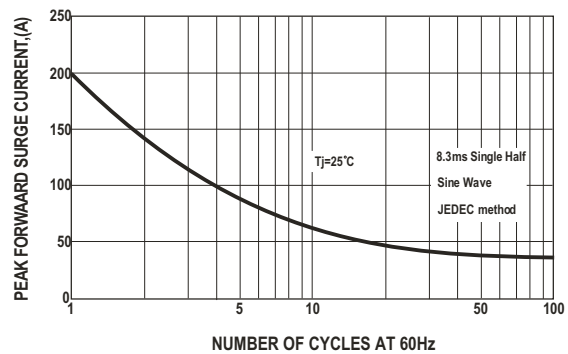


FIG.5-TYPICAL JUNCTION CAPACITANCE

