

HER501~HER508

HIGH EFFICIENT RECOVERY RECTIFIER

VOLTAGE 50 to 1000 Volt **CURRENT** 5.0 Ampere

DO-201AD

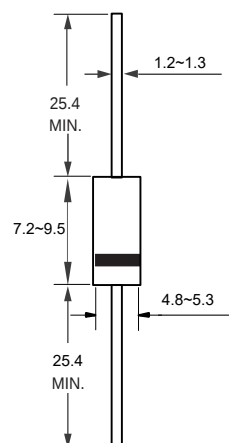
Unit:mm

FEATURES

- Low Forward Voltage Drop
- High current capability
- High reliability
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	HER501	HER502	HER503	HER504	HER505	HER506	HER507	HER508	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 DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Current (see FIG.1)	I _{F(AV)}	5.0								A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	160								A
Maximum Forward Voltage at 5.0 A	V _F	1.0			1.30		1.70			V
Maximum DC Reverse Current at T _j =25 °C Rated DC Blocking Voltage T _j =100 °C	I _R	10 200					μA			
Maximum Reverse Recovery Time(Note 1)	t _{rr}	50					75			ns
Typical Junction Capacitance (Note2)	C _J	100					65			pF
Thermal Resistance	R _{θJL}	30								°C / W
Operating Junction 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 4.0 volt

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RATING AND CHARACTERISTIC CURVES

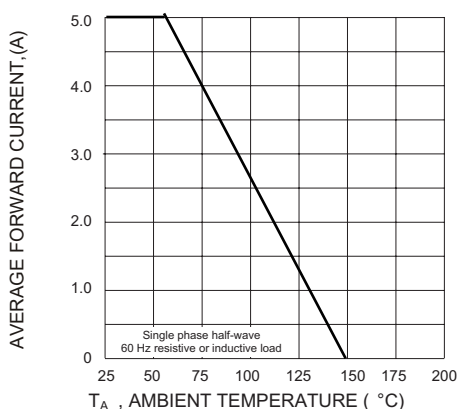


Fig. 1 Forward Current Derating Curve

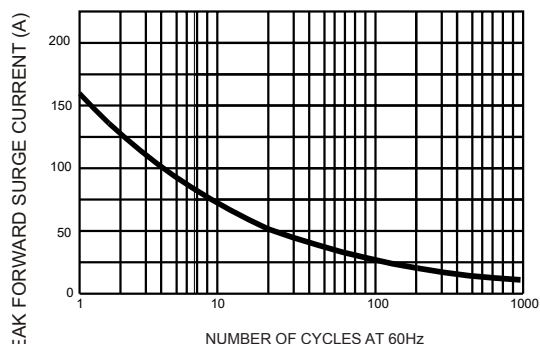


Fig. 2 Surge Current Derating Curve

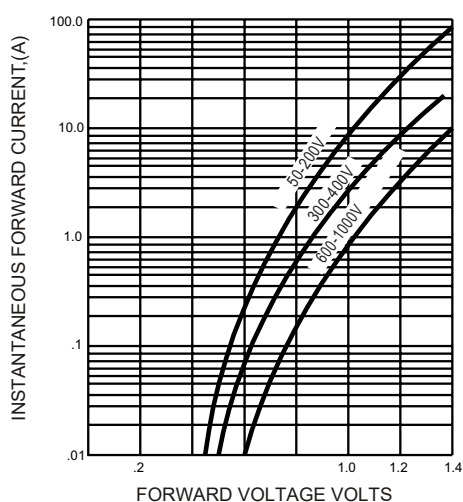


Fig. 3 Typical Forward Characteristics

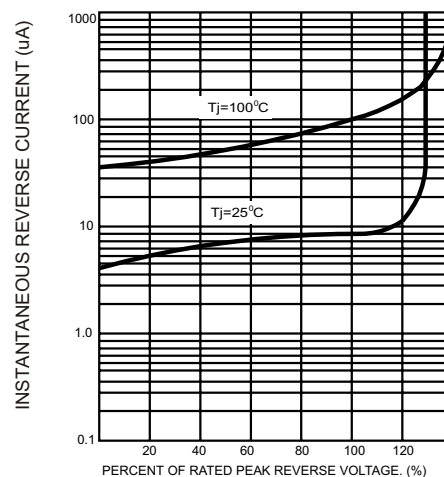


Fig. 4 Typical Reverse Characteristics

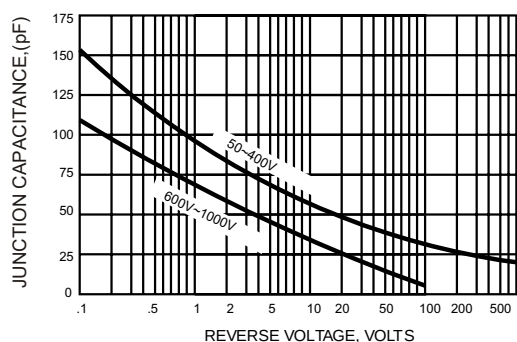
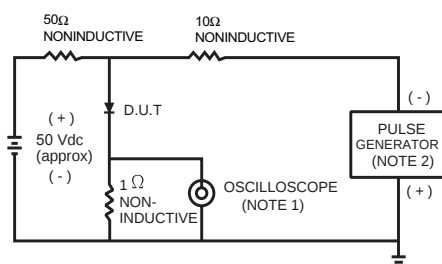


Fig. 5 Typical Junction Capacitance



NOTES:
3. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf.
4. Rise time = 10 ns max; Source impedance = 50 ohms.

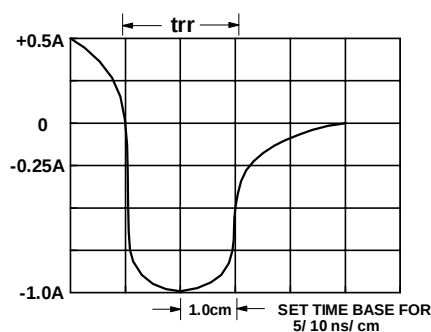


Fig. 6 Reverse Recovery Time Characteristic and Test Circuit

HER501~HER508

ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
HER501~HER508	DO-201AD	13 Inch	1200