

HIGH EFFICIENCY RECTIFIERS

VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 2.0 A

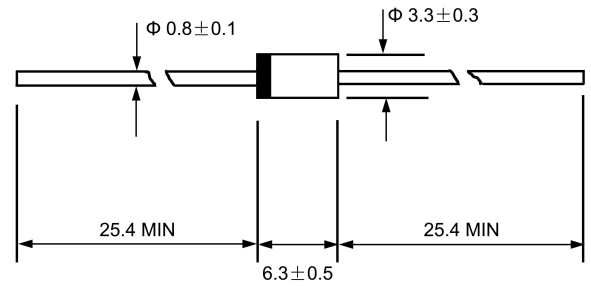
FEATURES

- ◇ Low cost
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case: JEDEC DO--15, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL- STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces, 0.39 grams
- ◇ Mounting position: Any

DO - 15



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		HER 201	HER 202	HER 203	HER 204	HER 205	HER 205P	HER 206	HER 207	HER 208	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	300	400	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	400	600	800	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	2.0									A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	I_{FSM}	60.0									A
Maximum instantaneous forward voltage @ 2.0 A	V_F	1.0		1.3		1.0		1.7			V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	I_R	5.0 100.0									μA
Typical reverse recovery time (Note1)	t_{rr}	50					75				ns
Typical junction capacitance (Note2)	C_J	50					30				pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	50									$^\circ C/W$
Operating junction temperature range	T_J	- 55 ---- + 125									$^\circ C$
Storage temperature range	T_{STG}	- 55 ---- + 150									$^\circ C$

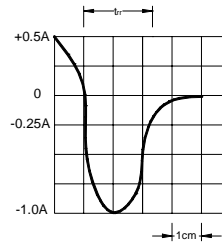
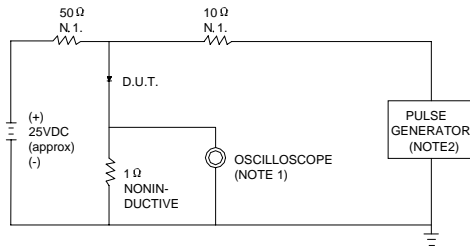
NOTE: 1. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.

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

3. Thermal resistance from junction to ambient.

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



NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1M Ω .22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω .

SET TIME BASE FOR 10/20 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

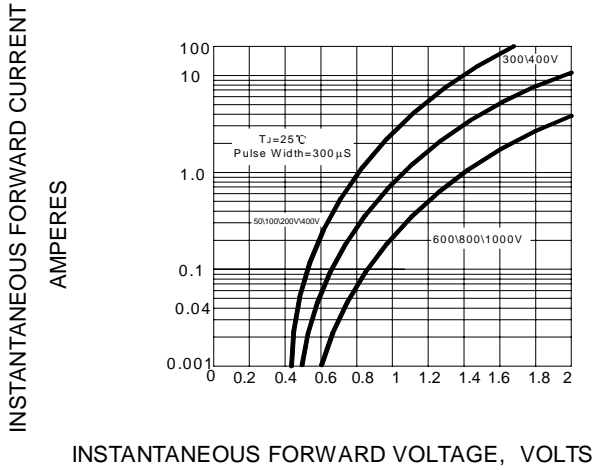


FIG.3 -- FORWARD DERATING CURVE

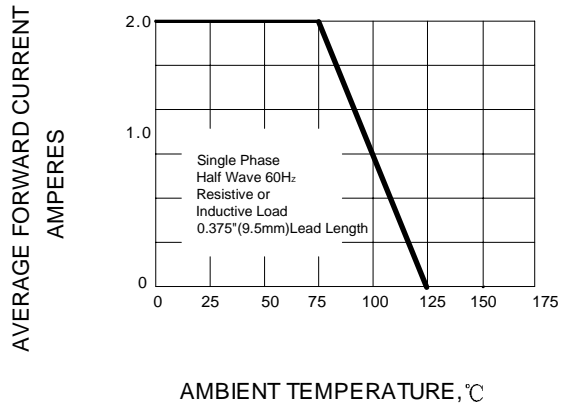


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

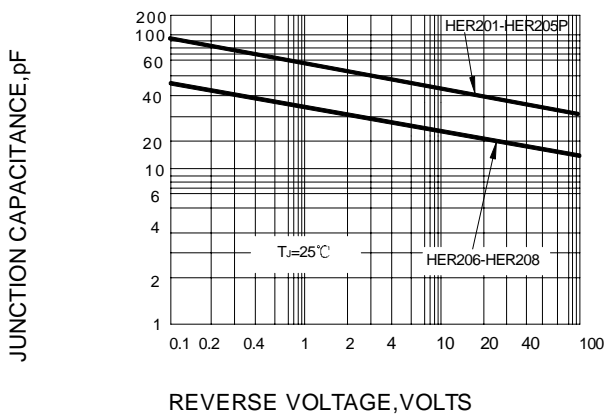


FIG.5 -- PEAK FORWARD SURGE CURRENT

