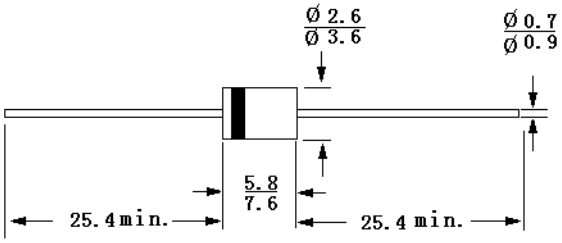
HER201 THRU HER208

HIGH EFFICIENCY RECTIFIERS

Voltage – 50 to 1000 Volts
Current – 2.0 Amperes

DO-15



Dimensions in mm

Features

- Void-free plastic in a DO-15 package
- 2A operation at Ta = 55℃ with no thermal runaway
- Ultra fast switching for high efficiency

Mechanical Data

- **Case**: Molded plastic
- **Lead**: MIL-STD-202, method 208 guaranteed
- **Polarity**: Band denotes cathode
- **Mounting Position**: Any

Absolute Maximum Ratings and Characteristics

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

	Symbols	HER 201	HER 202	HER 203	HER 204	HER 205	HER 206	HER 207	HER 208	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum average forward rectified current at T_A = 55℃	I_O	2.0								Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60								Amps
Maximum instantaneous forward voltage at 2.0A DC	V_F	1.0			1.3		1.7			Volts
Maximum DC reverse current T_J = 25°C at rated DC blocking voltage T_J = 100°C	I_R	5.0 500								μAmps
Maximum reverse recovery time (Note 1)	t_{rr}	50					75			nSec
Typical junction capacitance (Note 2)	C_J	35								pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	45								°C/W
Operating and storage temperature range	T_J ,T_{Stg}	-55 to +150								°C

Notes: 1. Test Conditions: I_F = 0.5A, I_R = 1A, I_{RR} = 0.25A.

2. Measured at 1 MHz and applied reverse voltage of 4 volts.

3. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length P.C.B.mounted.

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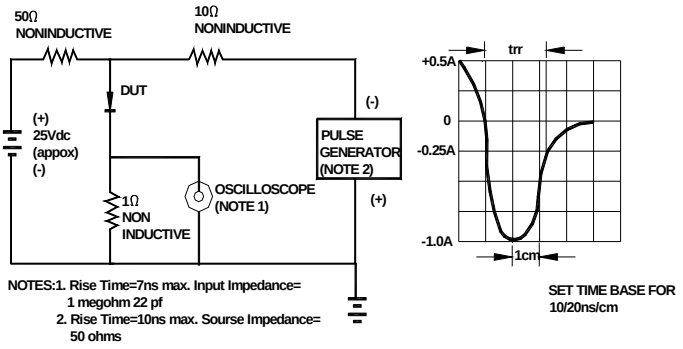
RATINGS AND CHARACTERISTIC CURVES

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



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

Fig.2 - TYPICAL FORWARD CURRENT DERATING

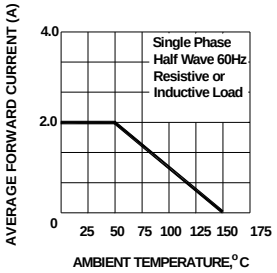


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

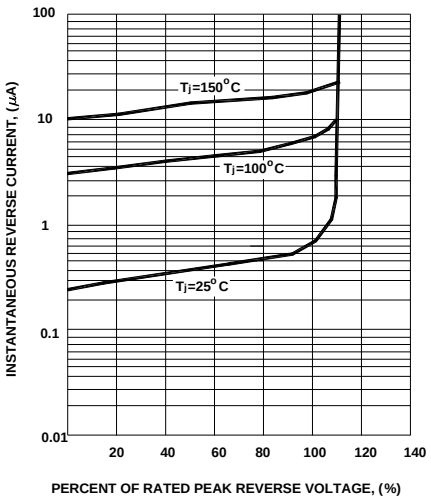


Fig. 4-TYPICAL FORWARD CHARACTERISTICS

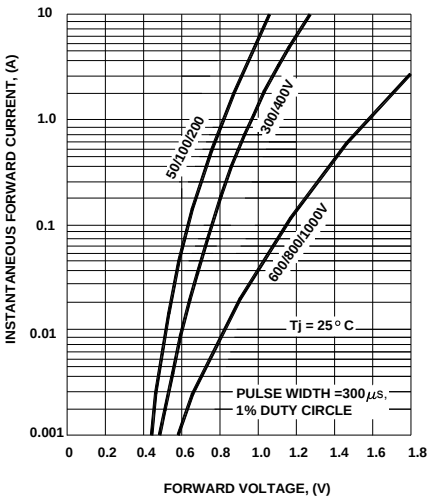


Fig. 5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

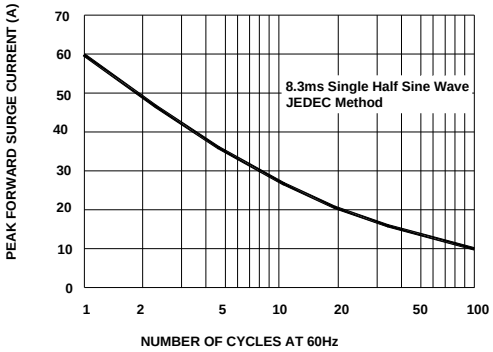


Fig. 6-TYPICAL JUNCTION CAPACITANCE