

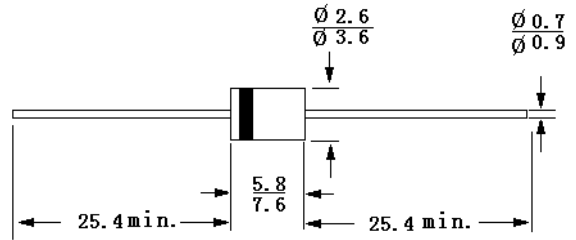
HER201 THRU HER208

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 $T_a = 55^\circ\text{C}$ 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

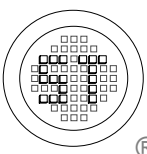
Absolute Maximum Ratings and Characteristics

Ratings at 25°C 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°C	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 at rated DC blocking voltage	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 _{θJA}	45								°C/W
Operating and storage temperature range	T _J , T _S	-55 to +150								°C

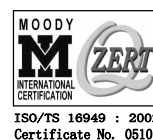
Notes:

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



SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



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HER201 THRU HER208

RATINGS AND CHARACTERISTIC CURVES

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

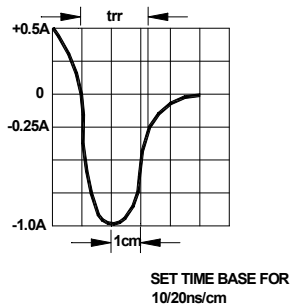
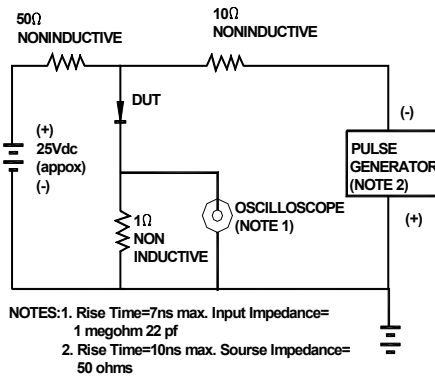


Fig.2 - TYPICAL FORWARD CURRENT DERATING

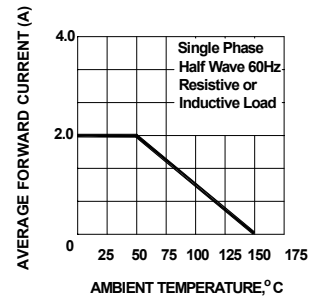


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

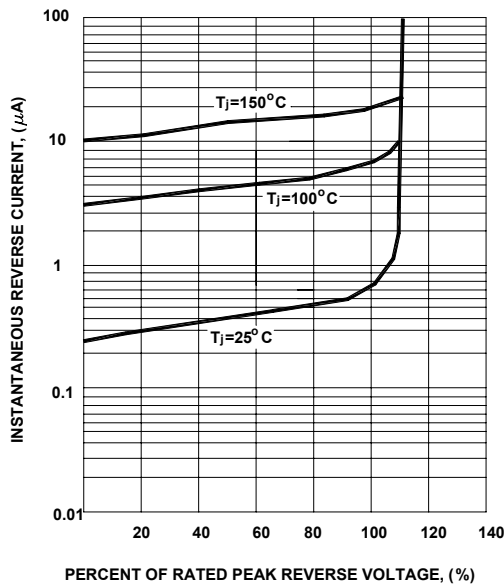


Fig. 4-TYPICAL FORWARD CHARACTERISTICS

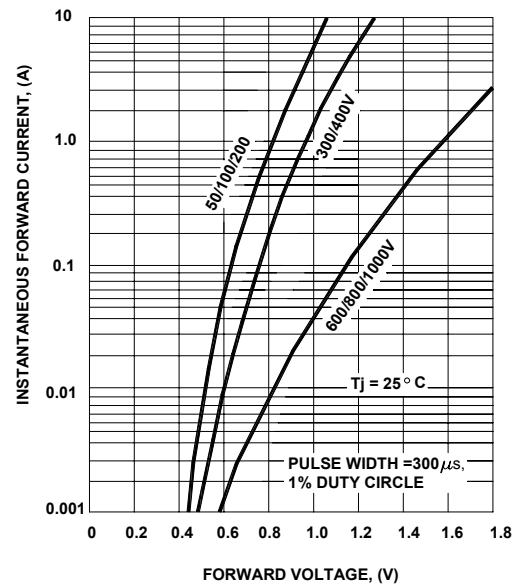


Fig. 5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

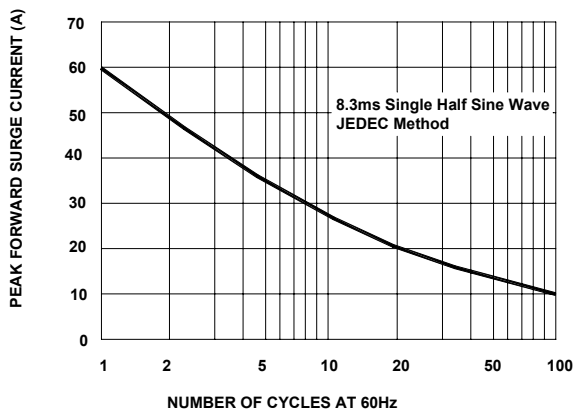
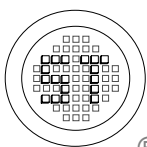
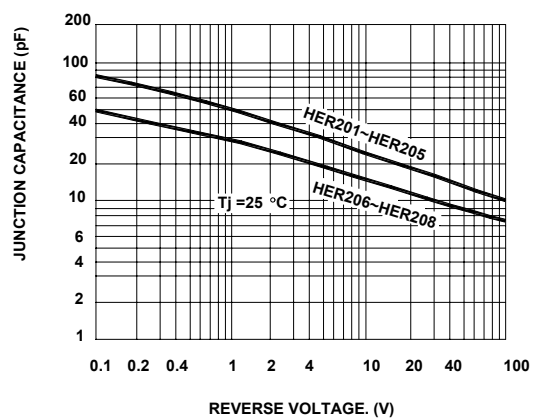
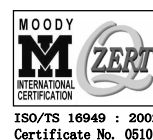


Fig. 6-TYPICAL JUNCTION CAPACITANCE



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