

HER151 THRU HER158

HIGH EFFICIENT RECTIFIERS

Reverse Voltage – 50 to 1000 Volts

Forward Current – 1.5 Amperes

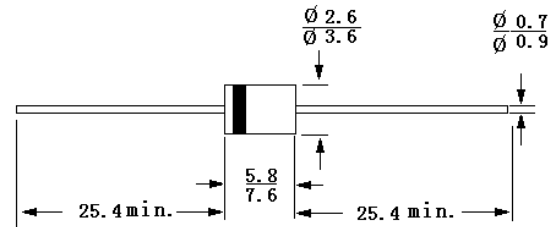
Features

- Void-free Plastic in a DO-15 package
- 1.5 amperes operation at $T_A = 55^\circ\text{C}$ with no thermal runaway
- Ultra Fast switching for high efficiency

Mechanical Data

- Cases: Molded plastic DO-15
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: band denotes cathode end
- Mounting position: Any

DO-15



Dimensions in mm

Maximum Ratings and Electrical Characteristics

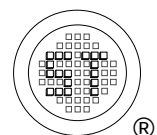
Rating at 25°C ambient temperature unless otherwise specified. Single-phase, half wave, 60Hz, resistive or inductive load.

	Symbols	HER 151	HER 152	HER 153	HER 154	HER 155	HER 156	HER 157	HER 158	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 rectified current .375"(9.5mm) lead length at T _A = 55 °C	I _(AV)	1.5								A
Peak forward surge current , 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30.0								A
Maximum instantaneous forward voltage @ 1.5A	V _F	1.0			1.3		1.7			V
Maximum DC reverse current @ T _A = 25 °C	I _R	5.0								uA
at rated DC blocking voltage @ T _A = 100 °C	I _R	500								uA
Typical junction capacitance (Note 1)	C _J	35								pF
Maximum reverse recovery time (Note 2)	T _{rr}	50					75			nS
Typical thermal resistance (Note3)	R _{θJA}	45.0								°C/W
Operating temperature range	T _J	-55 to +150								°C
Storage temperature range	T _{Stg}	-55 to +150								°C

Note: 1. Measured at 1 MHz and applied reverse voltage of 4.0 Volts D.C.

2. Reverse recovery test conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.

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



Dated : 21/03/2003

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RATINGS AND CHARACTERISTIC CURVES

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

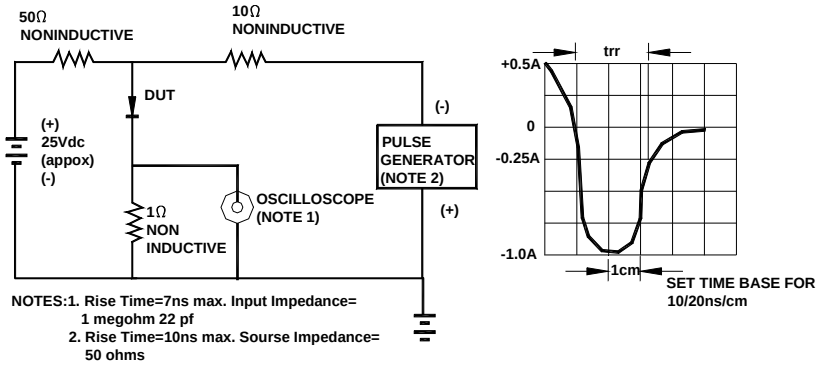


Fig.2 - TYPICAL FORWARD CURRENT DERATING

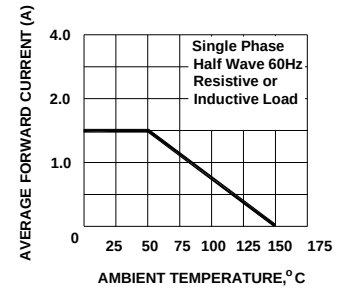


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

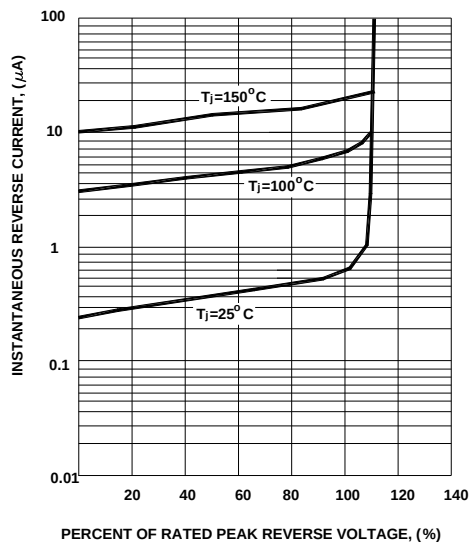


Fig. 4-TYPICAL FORWARD CHARACTERISTICS

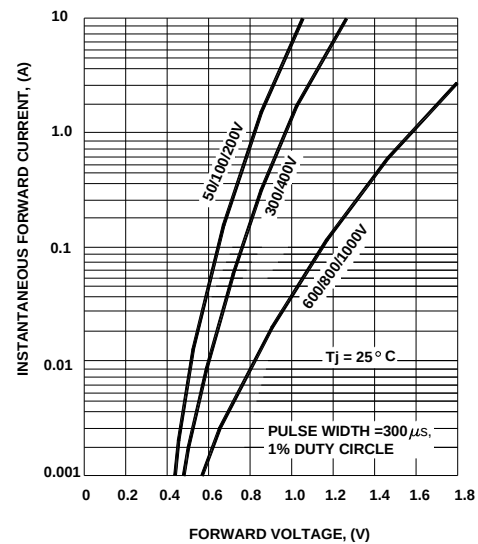


Fig. 5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

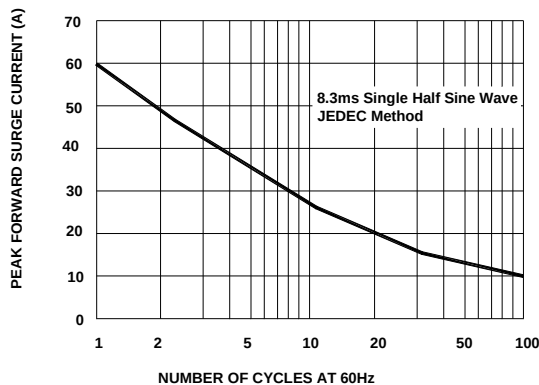


Fig. 6-TYPICAL JUNCTION CAPACITANCE

