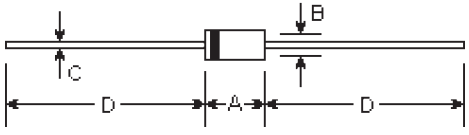
HER151 THRU HER158

HIGH EFFICIENCY RECTIFIER
Reverse Voltage - 50 to 1000 Volts
Forward Current - 1.5 Amperes

Features

- Plastic package has Underwriters Laboratory Flammability classification 94V-0 utilizing Flame retardant epoxy molding compound
- Void-free plastic in DO-15 package
- 1.5 ampere operation at T_A=55℃ with no thermal runaway
- Ultra fast switching for high efficiency

DO-15



Mechanical Data

- **Case:** Molded plastic, DO-15
- **Terminals:** Axial leads, solderable per MIL-STD-202, method 208
- **Polarity:** Band denotes cathode
- **Mounting Position:** Any
- **Weight:** 0.014 ounce, 0.39 gram

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.228	0.299	5.8	7.6	
B	0.102	0.142	2.6	3.6	ϕ
C	0.028	0.034	0.71	0.86	ϕ
D	1.000	-	25.40	-	

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ 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
Peak reverse voltage, Repetitive;	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
DC reverse voltage	V_{DC}	50	100	200	300	400	600	800	1000	Volts
Average forward current, I_O@T_A=55℃ 3/8" lead length, 60Hz, resistive or inductive load	$I_{(AV)}$	1.5								Amps
Peak forward surge current, I_{FM} (surge) 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	50.0								Amps
Maximum forward voltage @1.5A, 25℃	V_F	1.00			1.30		1.70			Volts
Maximum reverse current, @ rate T_J=25℃ reverse voltage T_A=100℃	I_R	10.0 500.0								μ A
Reverse recovery time I_F=0.5A, I_R=1A, I_{RR}=0.25A	T_{rr}	50					75			nS
Typical junction capacitance (Note 1)	C_J	25								ρ F
Typical thermal resistance (Note 2)	$R_{\theta JA}$	50.0								℃/W
Operating and storage temperature range	T_J, T_{STG}	-55 to +150								℃

Notes:

(1) Measured at 1.0MHz and applied reverse voltage of 4.0 VDC

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

RATINGS AND CHARACTERISTIC CURVES

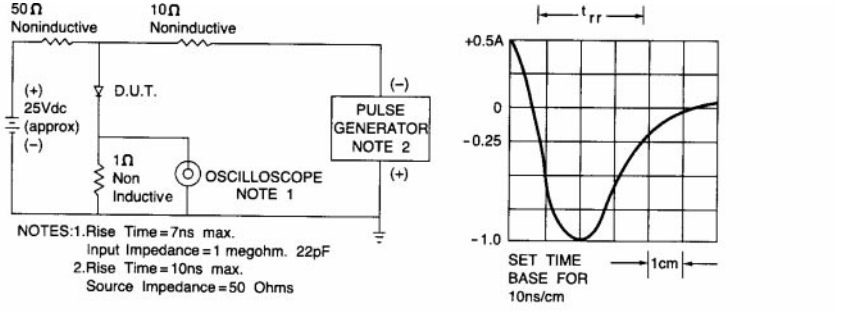


Fig. 1 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

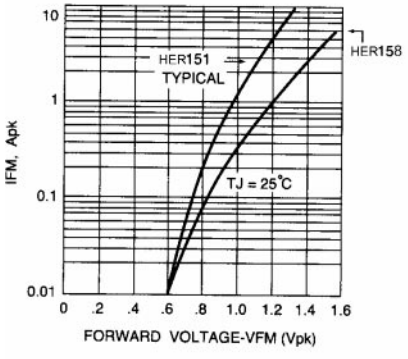


Fig. 2 – FORWARD CHARACTERISTICS

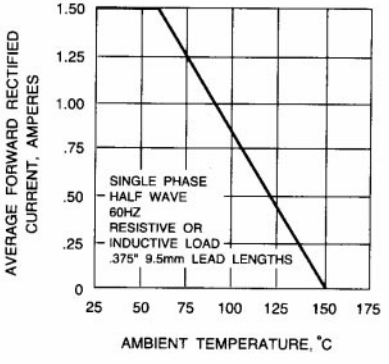


Fig. 3 – FORWARD CURRENT DERATING CURVE

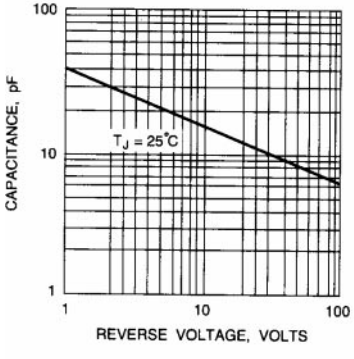


Fig. 4 – TYPICAL JUNCTION CAPACITANCE
vs. REVERSE VOLTAGE

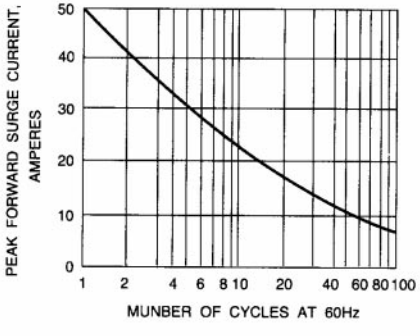


Fig. 5 – PEAK FORWARD SURGE CURRENT

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