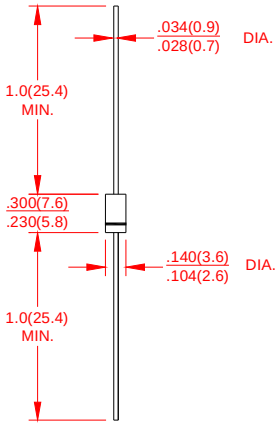
HIGH EFFICIENCY RECTIFIER

HER151 THRU HER158

VOLTAGE RANGE **50 to 1000 Volts**
CURRENT **1.5Ampere**

DO-15



Dimensions in inches and (millimeters)

FEATURES

- Low coat construction
- Fast switching for high efficency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
  260℃/10 secods/.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.014ounce, 0.39 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25^{O}C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

		SYMBOLS	HER 151	HER 152	HER 153	HER 154	HER 155	HER 156	HER 157	HER 158	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	800	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375”(9.5mm) lead length at T_A= 50℃		$I_{(AV)}$	1.0								Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I_{FSM}	50								Amps
Maximum Instantaneous Forward Voltage @ 1.5A		V_F	1.0			1.3		1.5	1.7		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A = 25℃	I_R	5.0								μA
	T_A = 125℃		250								
Maximum Full Load Recovery Current,full cycle average 0.375”(9.5mm)lead length at TL=55℃		$IR_{(AV)}$	100								μA
Maximum Reverse Recovery Time Test conditions IF=0.5A,IR=01.0A,IRR=0.25A		trr	50					75			ns
Typical Thermal Resistance (NOTE 2)		C_J	30					20			PF
Typical Thermal Resistance(NOTE 1)		$R_{\theta JA}$	40								℃/W
Operating Junction Temperature Range		T_J	(-55 to +150)								℃
Storage Temperature Rrange		T_{STG}	(-55 to +150)								℃

Notes:
1. Thermal resistance from junction to ambient with .375”(9.5mm)lead length, PCB. mounted.
2. Measured at 1 MHz and applied reverse of 4.0 volts.

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	CURRENT	1.5Ampere

RATING AND CHRACTERISTIC CURVES HER151 THRU HER158

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

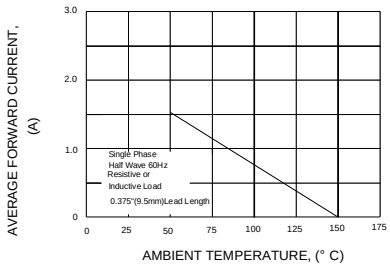


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

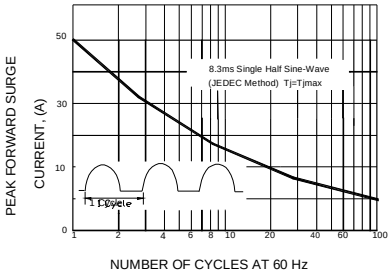


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

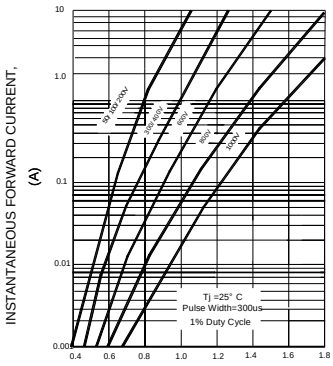


FIG.4-TYPICAL REVERSE CHARACTERISTICS

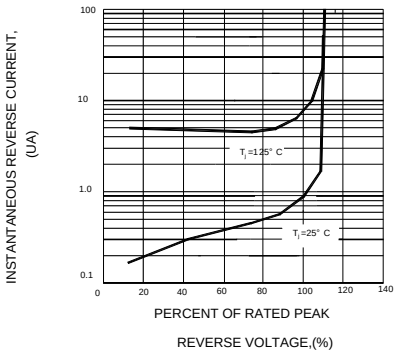


FIG.5-TYPICAL JUNCTION CAPACITANCE

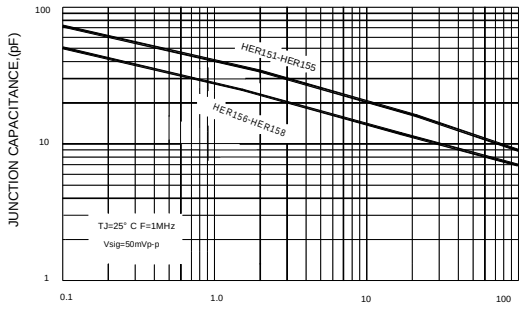
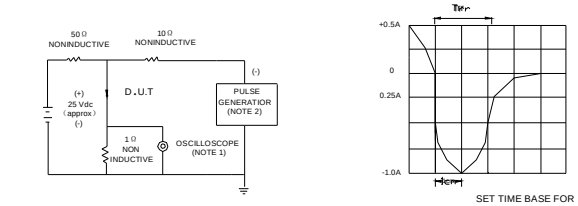


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE REXOVERY TIME CHARACTERISTIC



NOTE: 1.Rise Time =7ns max.Input Impedance=1megohm.22pF
2.Rise time=10ns max.Source Impedance=50 ohms