



HIGH EFFICIENCY RECTIFIER

HER251 THRU HER258

VOLTAGE RANGE
CURRENT

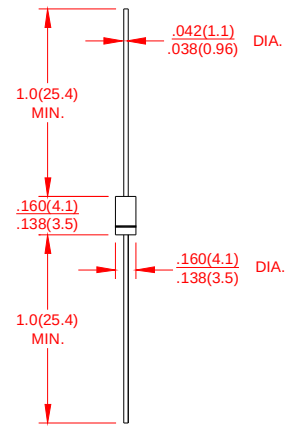
50 to 1000 Volts
2.5Ampere

FEATURES

- Low coat construction
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/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: 0.020ounce, 0.56 grams



R-3

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL 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 251	HER 252	HER 253	HER 254	HER 255	HER 256	HER 257	HER 258	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 0.375”(9.5mm) lead length at T _A = 50℃		I _(AV)	2.5								Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I _{FSM}	100								Amps
Maximum Instantaneous Forward Voltage @ 2.5A		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=1.0A,IRR=0.25A		trr	50					75			ns
Typical Thermal Resistance (NOTE 2)		C _J	30					35			PF
Typical Thermal Resistance(NOTE 1)		R _{θJA}	35								℃/W
Operating Junction Temperature Range		T _J	(-55 to +150)								℃
Storage Temperature Range		T _{STG}	(-55 to +150)								℃

Notes:

- 1 Thermal resistance from junction to ambient with .375"(9.5mm)lead length, PCB. mounted. .
2. Measured at 1.0 MHz and applied reverse of 4.0 V



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RATING AND CHARACTERISTIC CURVES HER251 THRU HER258

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

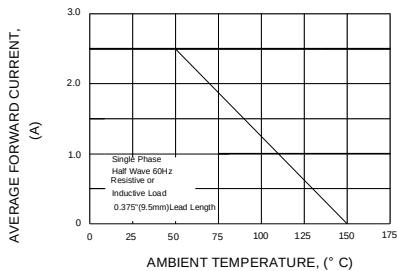


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

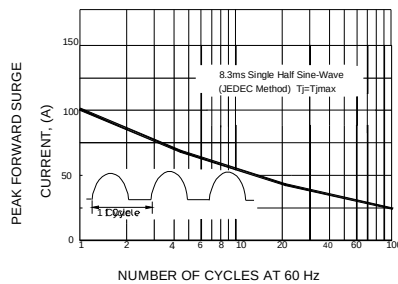


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

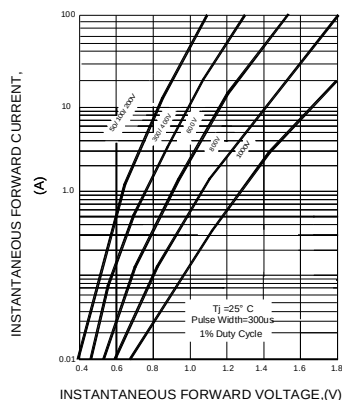


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

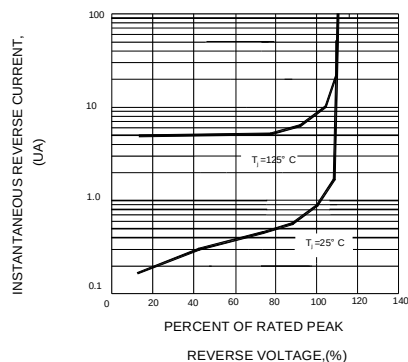


FIG.5-TYPICAL JUNCTION CAPACITANCE

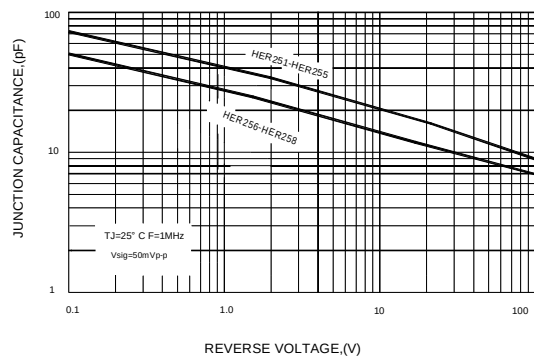
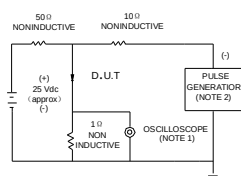


FIG.6-TEST CIRCUIT DIAGRAM AND
REVERSE RECOVERY TIME CHARACTERISTIC



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

