

Kingtronics®

HER151 THRU HER158

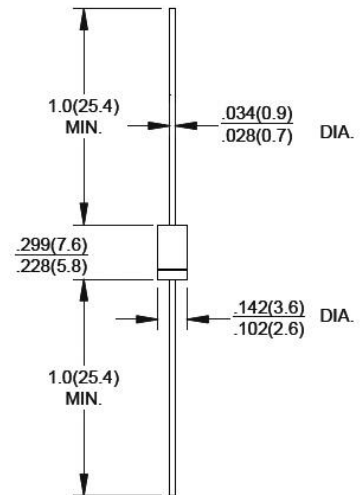
HIGH EFFICIENCY RECTIFIERS

REVERSE VOLTAGE 50 to 1000 Volts **FORWARD CURRENT** 2.0 Ampere

FEATURES

- High speed switching
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High reliability
- High temperature soldering guaranteed
- 260°C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs(2.3kg) tension

DO-15



MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any

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%

Dimensions in inches and (millimeters)

PARAMETER	SYMBOL	HER 151	HER 152	HER 153	HER 154	HER 155	HER 156	HER 157	HER 158	UNIT
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 $T_A=55^\circ C$	$I_{(AV)}$	2.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50								Amps
Maximum instantaneous forward voltage at 2.0A	V_F	1.0		1.3		1.70			VOLTS	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0								uA
		100								
Maximum reverse recovery time (NOTE 1)	t_{rr}	50					75			nS
Typical Junction Capacitance (Note 2)	C_J	30					20			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	50								°C/W
Operating and storage temperature range	T_J, T_{STG}	-55 to +150								°C

1- Reverse recovery condition $I_f=0.5A, I_r=1.0A, I_{rr}=0.25A$.

2- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

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

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

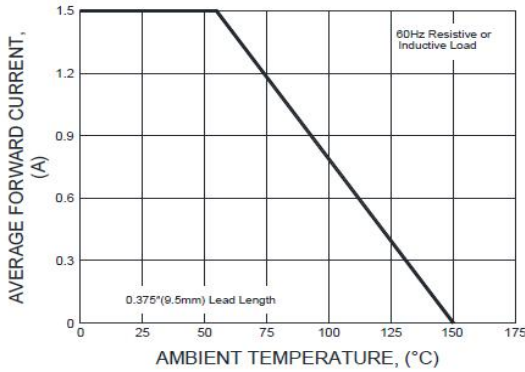


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

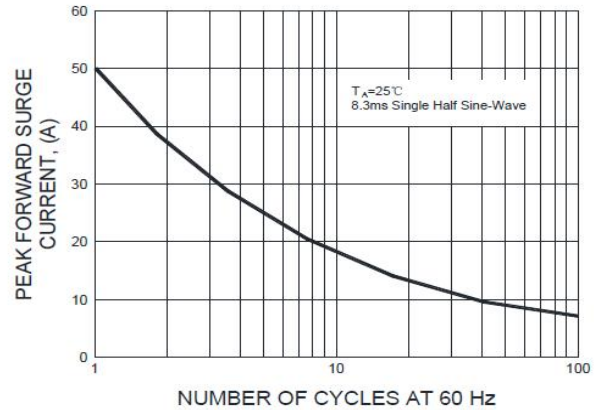


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

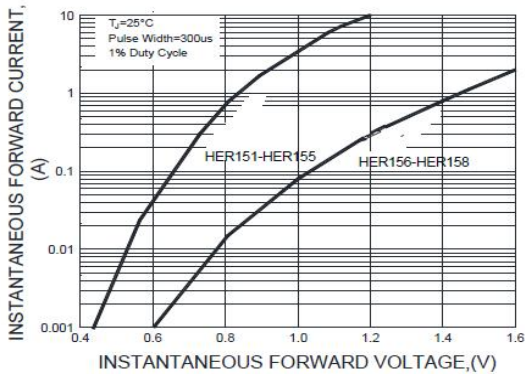


FIG.3-TYPICAL REVERSE CHARACTERISTICS

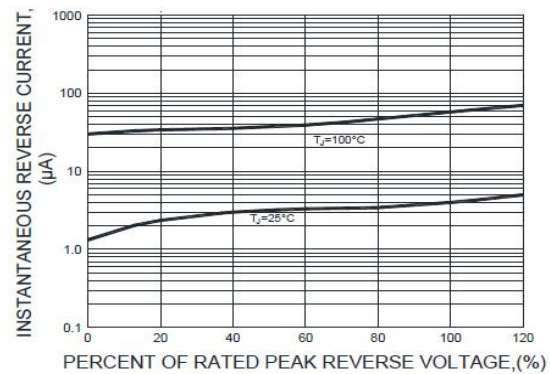


FIG.5-TYPICAL JUNCTION CAPACITANCE

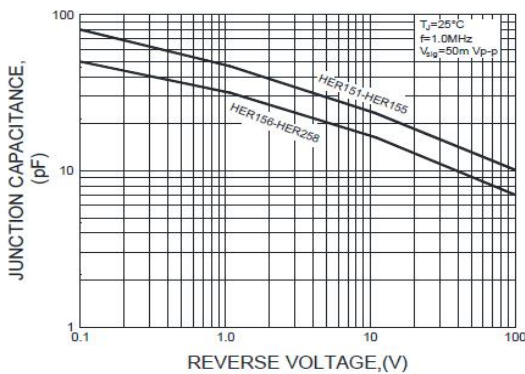
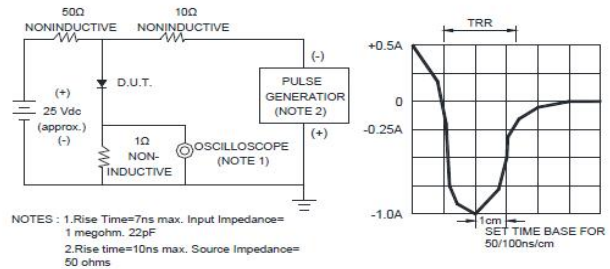


FIG.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



Note: Specifications are subject to change without notice.