

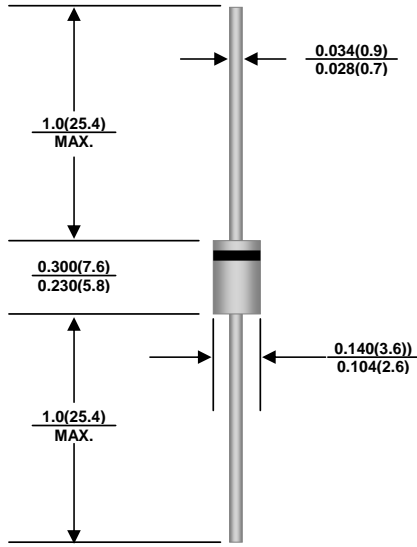


HER151 THRU HER158

HIGH EFFICIENCY RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.5 Ampere

DO-15



Dimensions in inches and (millimeters)

FEATURES

- ◆ Low power loss, high efficiency
- ◆ Low leakage
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High speed switching
- ◆ High current surge capability
- ◆ High reliability
- ◆ Pb free product : 99% Sn above can meet RoHS environment substance directive request

MECHANICAL DATA

Case: JEDEC DO-15, Molded plastic

Terminals: Solderable per MIL-STD-750 Method 2026

Epoxy: UL94V-0 rate flame retardant

Approx. Weight: 0.014 ounce, 0.395 gram

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 current derate by 20%.

PARAMETER	SYMBOLS	HER 151	HER 152	HER 153	HER 155	HER 156	HER 157	HER 158	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Average Rectified current at $T_A = 55^\circ\text{C}$	$I_{(AV)}$	1.5							Amp
Non-repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50							Amps
Maximum Forward Voltage at $I_F = 1.5\text{A}$	V_F	1.0		1.3		1.7			Volts
Maximum DC reverse current at rated DC blocking voltage at $T_A = 25^\circ\text{C}$	I_R	5.0							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	50				75			nS
Typical Junction Capacitance (NOTE 2)	C_J	50				35			pF
Operating Junction & Storage Temperature Range	T_J, T_{STG}	-65 to +150							$^\circ\text{C}$

Note: 1. Reverse recovery condition $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.



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RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

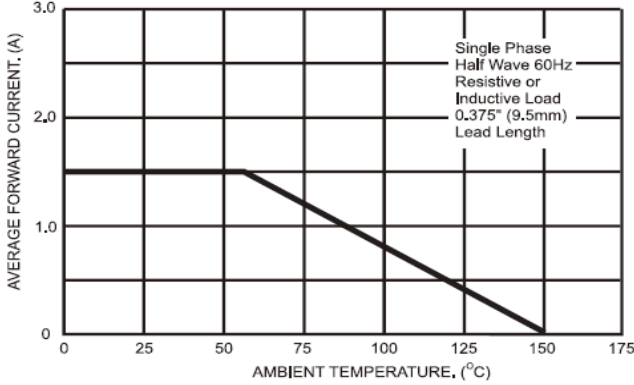


FIG.2- TYPICAL REVERSE CHARACTERISTICS

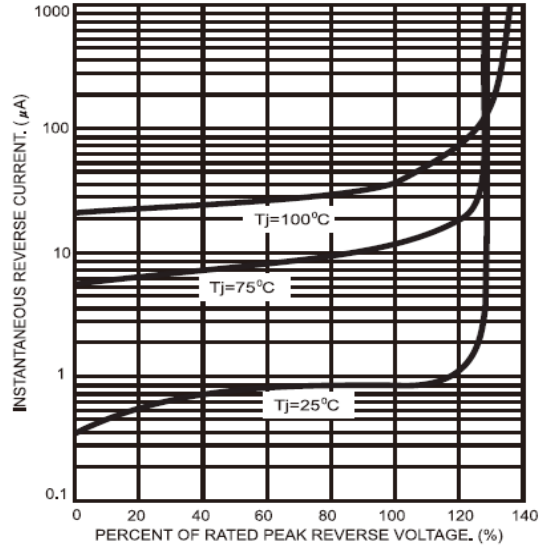


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

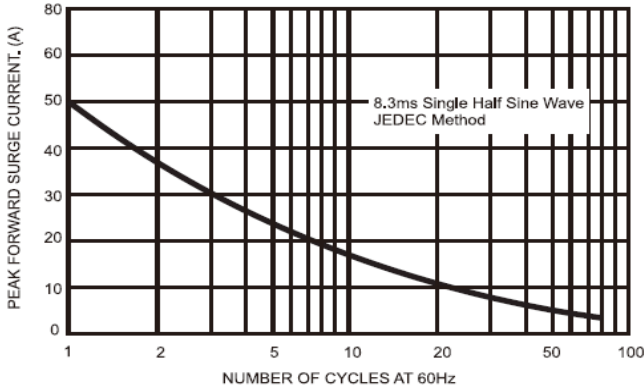


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

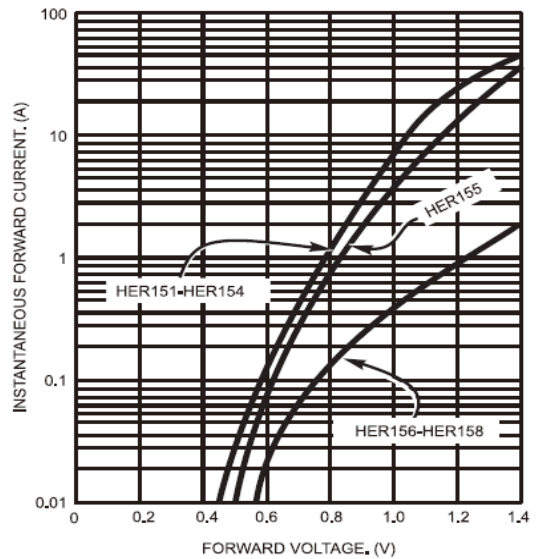


FIG.4- TYPICAL JUNCTION CAPACITANCE

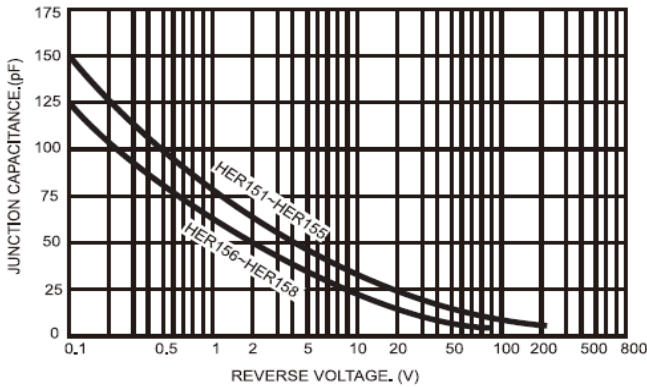


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

