

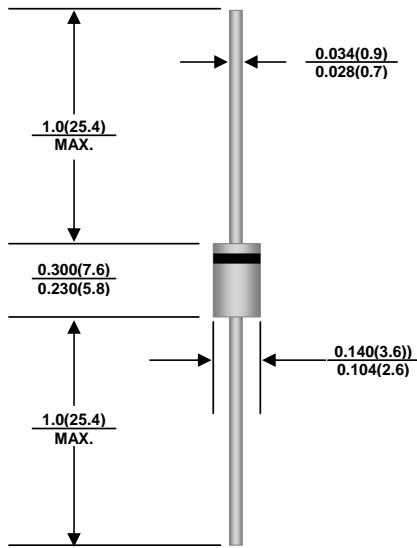


# HER151G THRU HER158G

## HIGH EFFICIENCY GLASS PASSIVATED RECTIFIER

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 151G	HER 152G	HER 153G	HER 155G	HER 156G	HER 157G	HER 158G	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 $I_F=1.5A$	$V_F$	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							$\mu\text{A}$
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  $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$

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

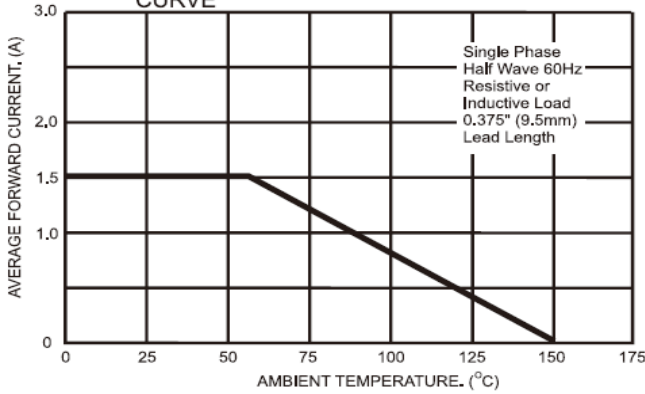


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

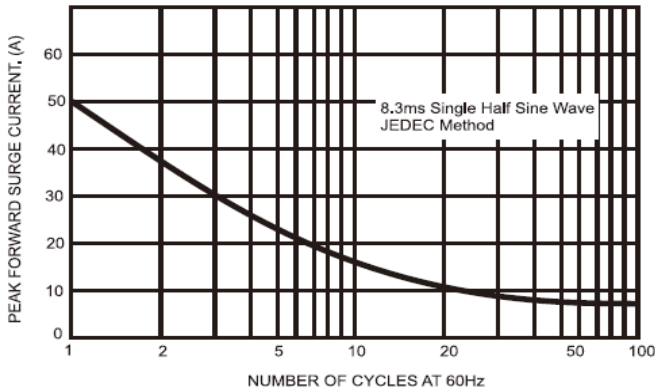


FIG.4- TYPICAL JUNCTION CAPACITANCE

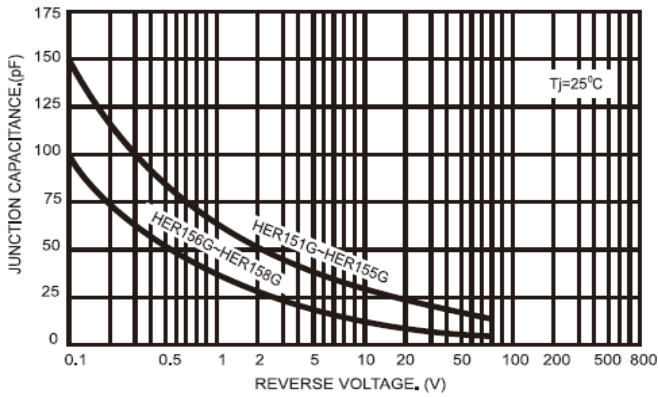


FIG.2- TYPICAL REVERSE CHARACTERISTICS

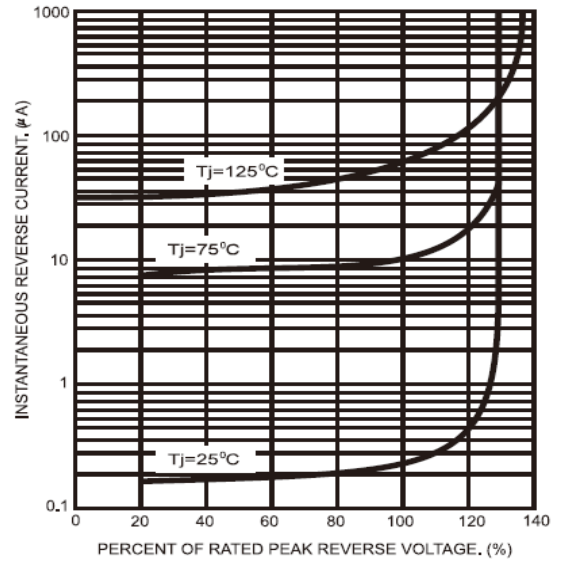


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

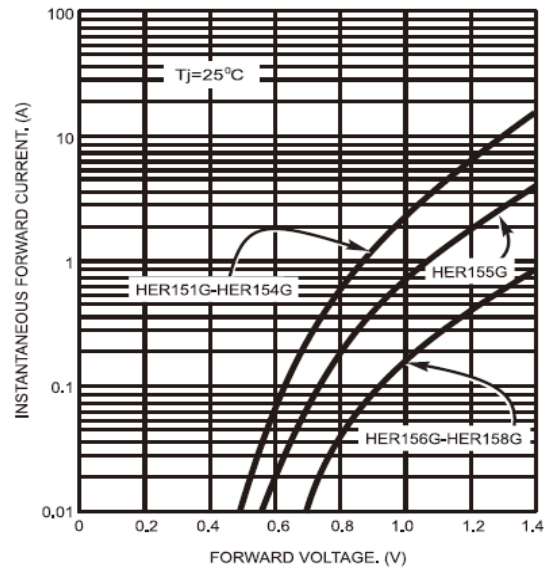
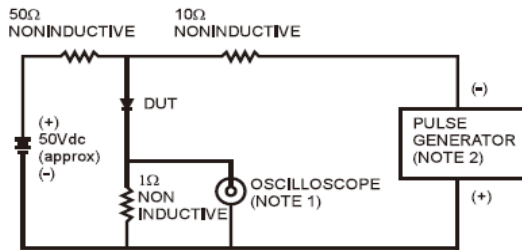


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf  
2. Rise Time=10ns max. Source Impedance= 50 ohms

