

HIGH EFFICIENCY RECTIFIERS

VOLTAGE RANGE: 50--- 1000 V

CURRENT: 1.5 A

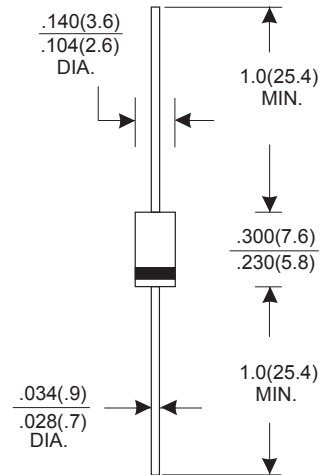
FEATURES

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- High reliability
- Low forward voltage drop
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed: 260 C/10 seconds at terminals
- Component in accordance to RoHs 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- Case style: DO-15 plastic molded
- Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- Polarity:Color band denotes cathode end
- Mounting Position:Any

DO-15



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate by 20%.

		HER 151	HER 152	HER 153	HER 154	HER 155	HER 156	HER 157	HER 158	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current.375"(9.5mm) Lead Length at Ta=50°C	$I_{F(AV)}$	1.5								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50.0								A
Maximum Instantaneous Forward Voltage at 1.5A	V_F	1.0		1.3		1.7			V	
Maximum reverse current at rated DC blocking voltage	@T _A =25	5.0								μA
	@T _A =100	150.0								
Maximum reverse recovery time (Note1)	t_{rr}	50				75				ns
Typical junction capacitance (Note2)	C_J	50				30				pF
Typical thermal resistance	$R_{θJA}$	50								°C/W
Operating junction temperature range	T_j	- 55 ---- + 125								°C
Storage temperature range	T_{STG}	- 55 ---- + 150								°C

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

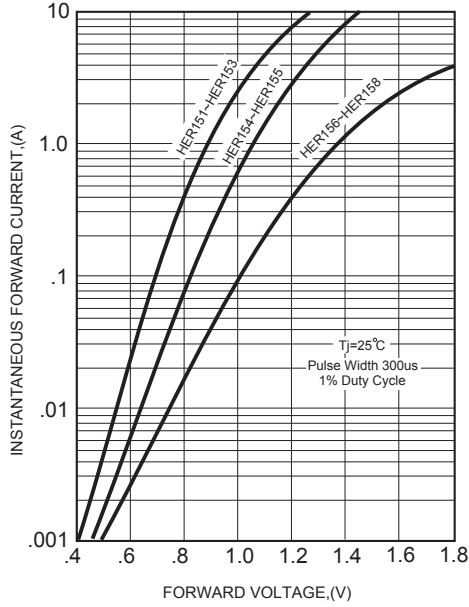


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

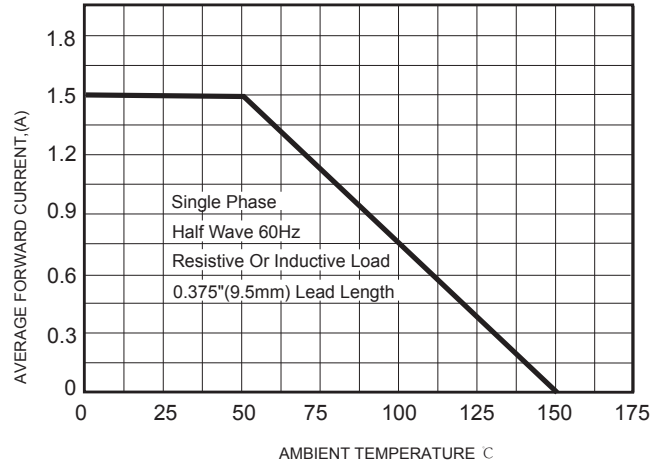
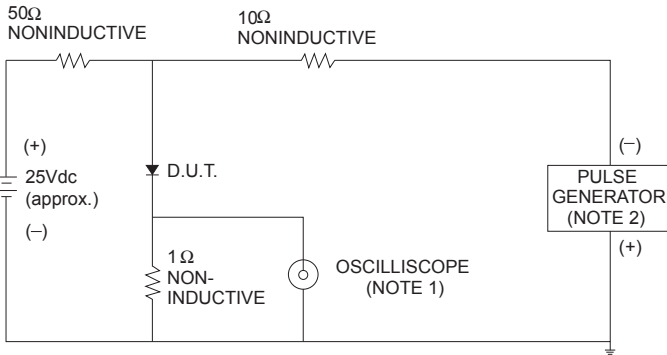


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

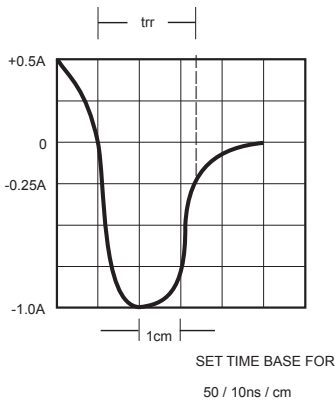


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

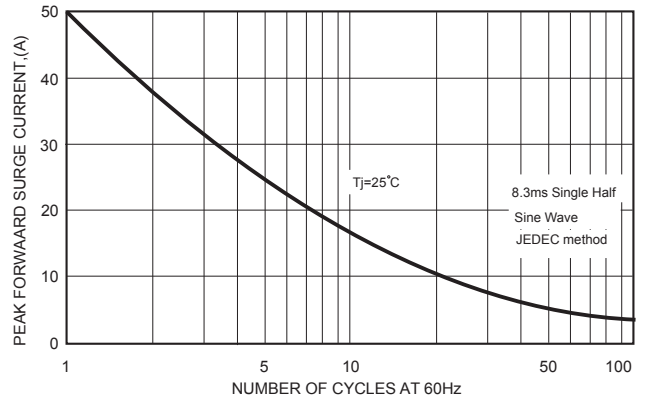
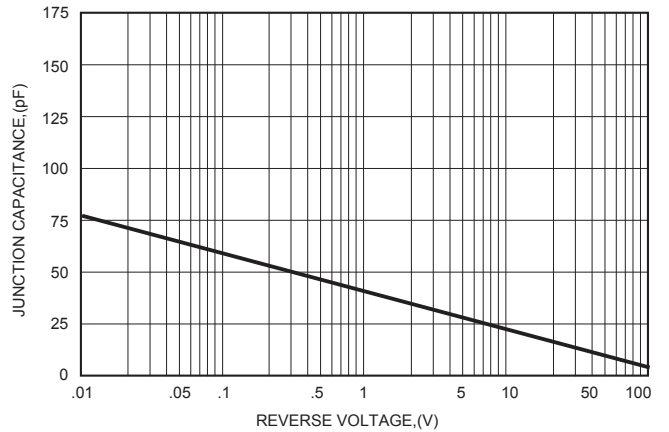


FIG.5 -- TYPICAL JUNCTION CAPACITANCE



RATINGS AND CHARACTERISTIC CURVES

FIG.1 -- PEAK PULSE POWER RATING CURVE

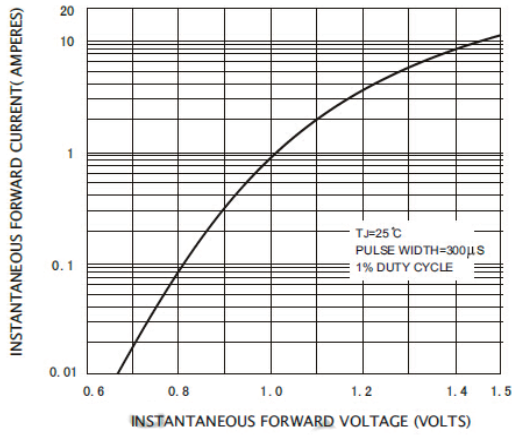


FIG.2 -- PULSE DERATING CURVE

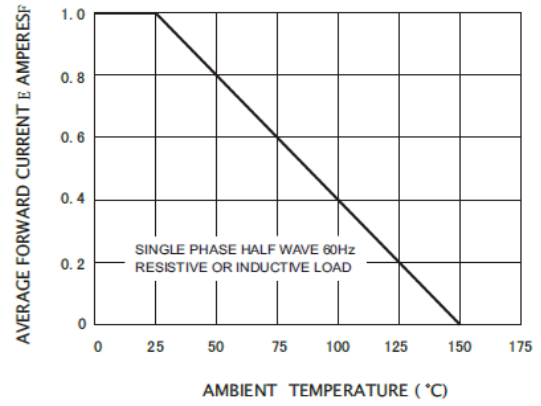


FIG.3 -- PEAK FORWARD SURGE CURRENT

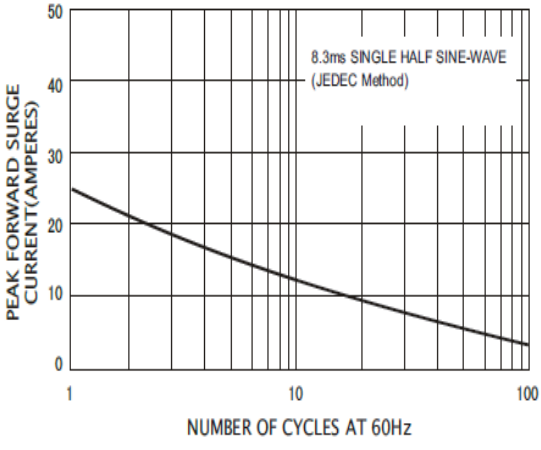


FIG.4-TYPICAL REVERSE CHARACTERISTICS

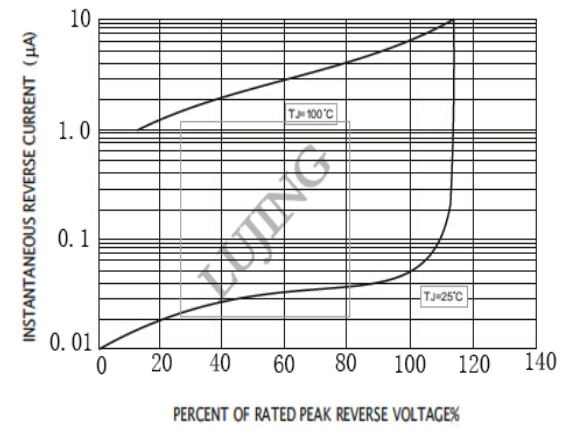


FIG.4 - TYPICAL JUNCTION CAPACITANCE

