



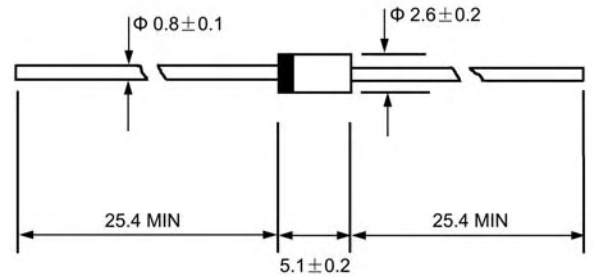
Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case: JEDEC DO-41, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.012 ounces, 0.34 grams
- ◇ Mounting position: Any

DO - 41



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

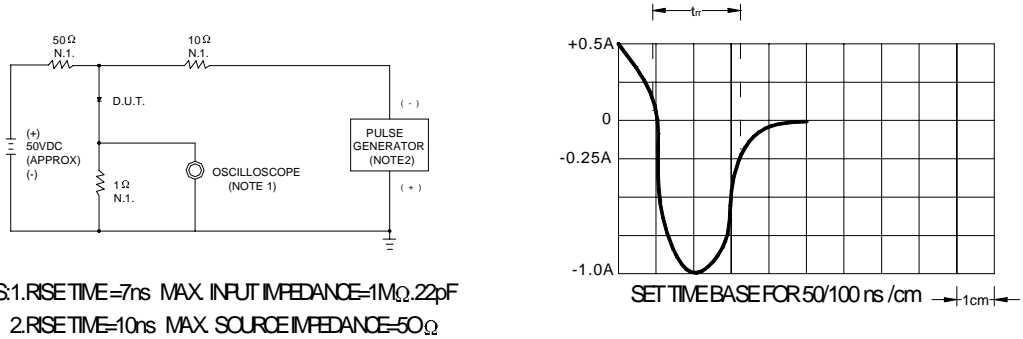
		ERB44 -02	ERB44 -04	ERB44 -06	ERB44 -08	ERB44 -10	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	1.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	30.0					A
Maximum instantaneous forward voltage @ 1.0 A	V_F	1.1					V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	5.0 100.0					μA
Maximum reverse recovery time (Note1)	t_{rr}	400					ns
Typical junction capacitance (Note2)	C_J	12					pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	55					$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	- 55----- +150					$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55----- + 150					$^\circ\text{C}$

 NOTE: 1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_r=0.25\text{A}$.

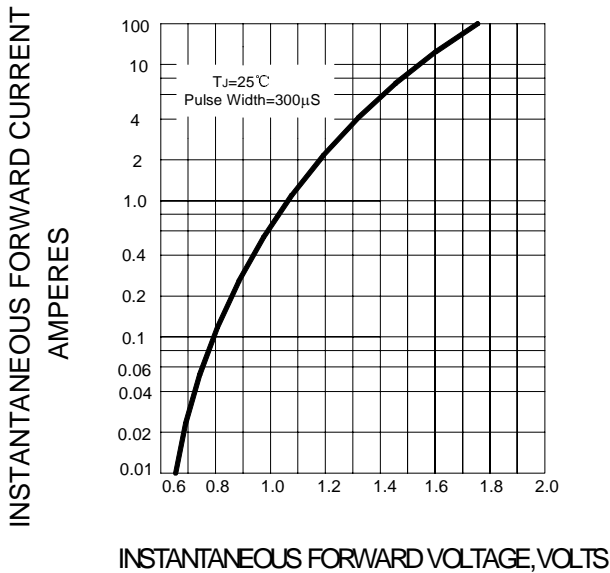
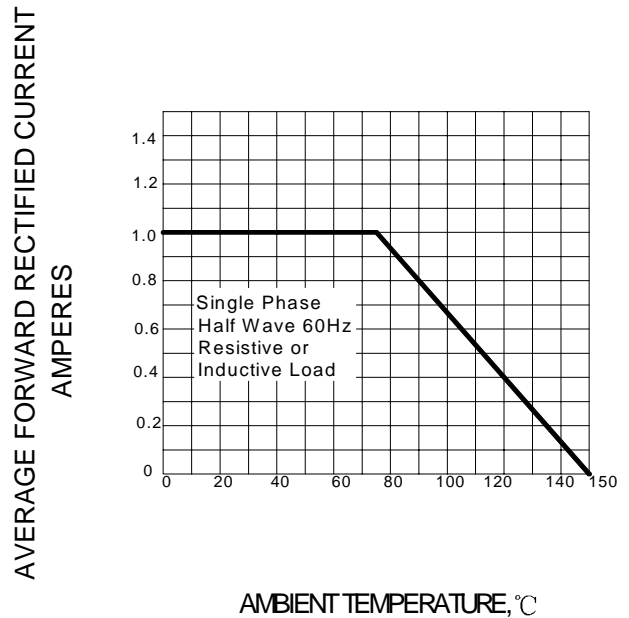
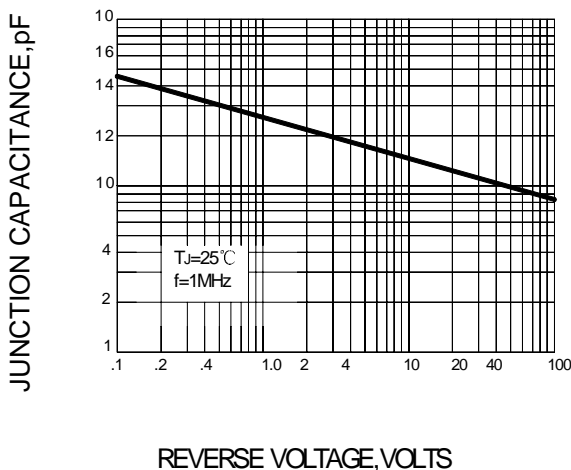
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient.

Ratings AND Characteristic Curves

FIG.1 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM


NOTES:1.RISE TIME=7ns MAX. INPUT IMPEDANCE=1MΩ,22pF
2.RISE TIME=10ns MAX. SOURCE IMPEDANCE=50Ω

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

FIG.3 – FORWARD DERATING CURVE

FIG.4 – TYPICAL JUNCTION CAPACITANCE

FIG.5 – PEAK FORWARD SURGE CURRENT
