



TAYCHIPST FAST RECOVERY RECTIFIER

ERB37-08 THRU ERB37-10

800V-1000V 1.0A

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

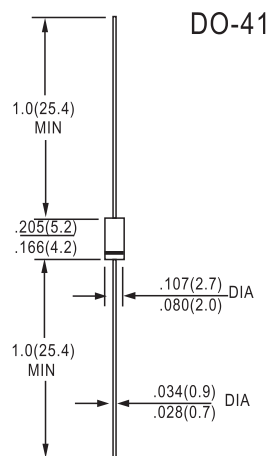
Terminals: Axial lead, solderable per

MIL - STD-202, Method 208

Polarity: Color band denotes cathode

Weight: 0.012 ounces, 0.34 grams

Mounting position: Any



Dimensions in inches and (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%.

		ERB37-08	ERB37-10	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	800	1000	V
Maximum RMS voltage	V_{RMS}	560	700	V
Maximum DC blocking voltage	V_{DC}	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	1.5		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}	250		ns
Typical junction capacitance (Note2)	C_J	12		pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	55		$^\circ\text{C/W}$
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 $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_{rr}=0.25\text{A}$.

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

3. Thermal resistance from junction to ambient.



RATINGS AND CHARACTERISTIC CURVES ERB37-08 THRU ERB37-10

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

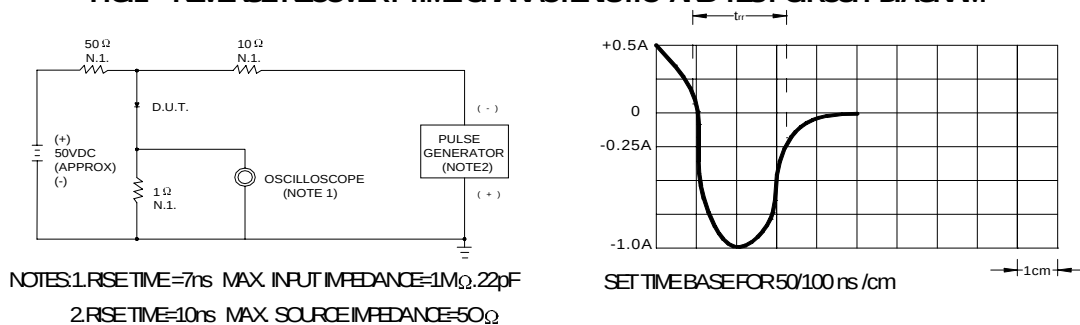


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

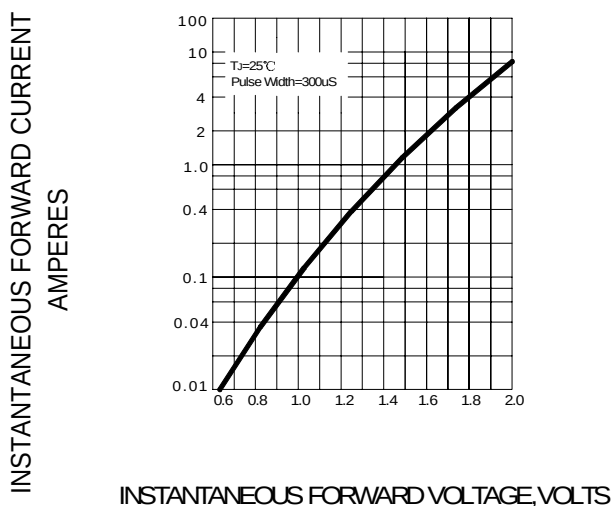


FIG.3 – FORWARD DERATING CURVE

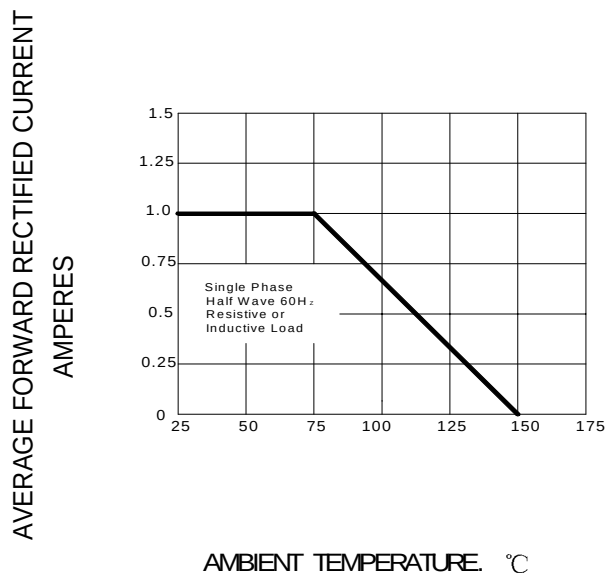


FIG.4 – TYPICAL JUNCTION CAPACITANCE

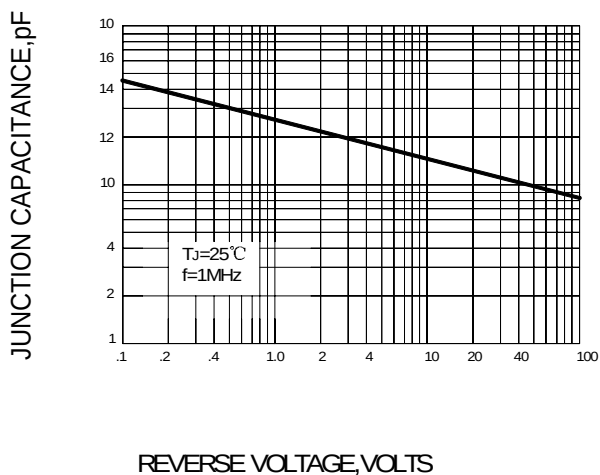


FIG.5 – PEAK FORWARD SURGE CURRENT

