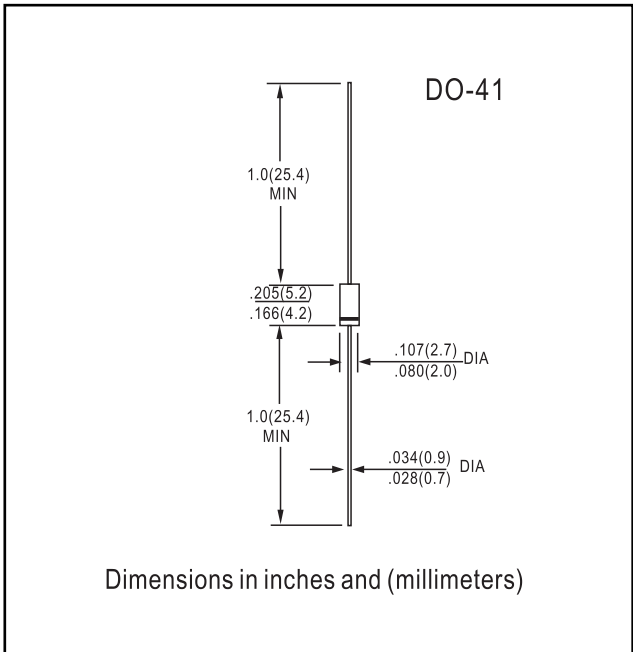




TAYCHIPST FAST RECOVERY RECTIFIER

ERB44-02 THRU ERB44-10
200V-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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

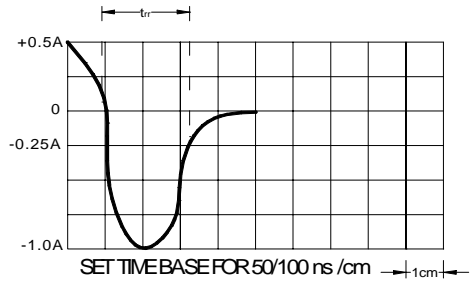
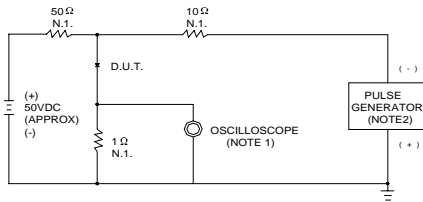
Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		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, @ $T_A=75^\circ C$	$I_{F(AV)}$	1.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	I_{FSM}	30.0					A
Maximum instantaneous forward voltage @ 1.0 A	V_F	1.1					V
Maximum reverse current at rated DC blocking voltage @ $T_A=100^\circ C$	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					$^\circ C/W$
Operating junction temperature range	T_J	- 55---- +150					$^\circ C$
Storage temperature range	T_{STG}	- 55---- + 150					$^\circ C$

NOTE: 1. Measured with $I_F=0.5A$, $I_R=1A$, $t_{rr}=0.25A$.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Thermal resistance from junction to ambient.

RATINGS AND CHARACTERISTIC CURVES ERB44-02 THRU ERB44-10

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

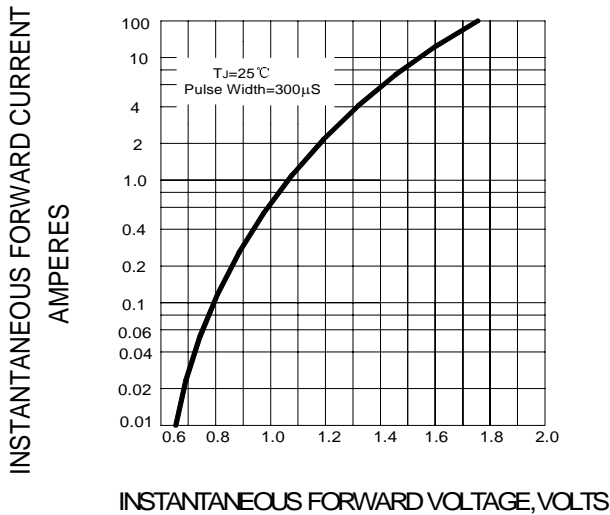


FIG.3 – FORWARD DERATING CURVE

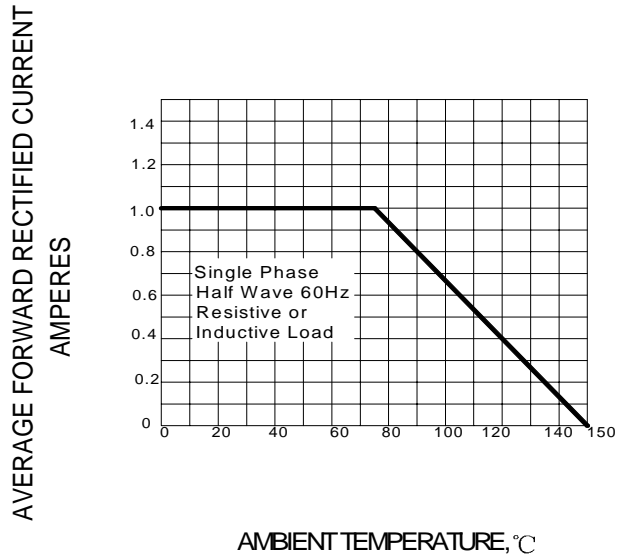


FIG.4 – TYPICAL JUNCTION CAPACITANCE

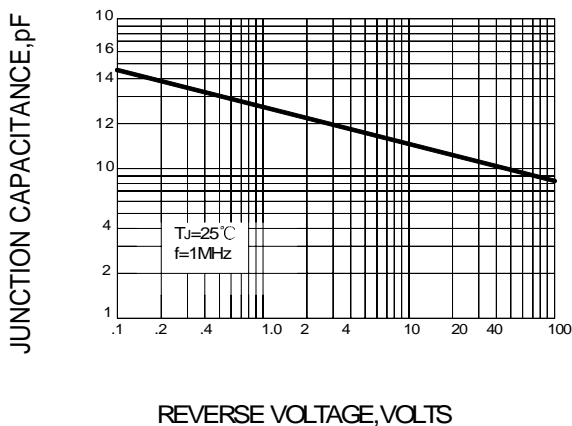


FIG.5 – PEAK FORWARD SURGE CURRENT

