



# TAYCHIPST FAST RECOVERY RECTIFIER

**ERA34-10**

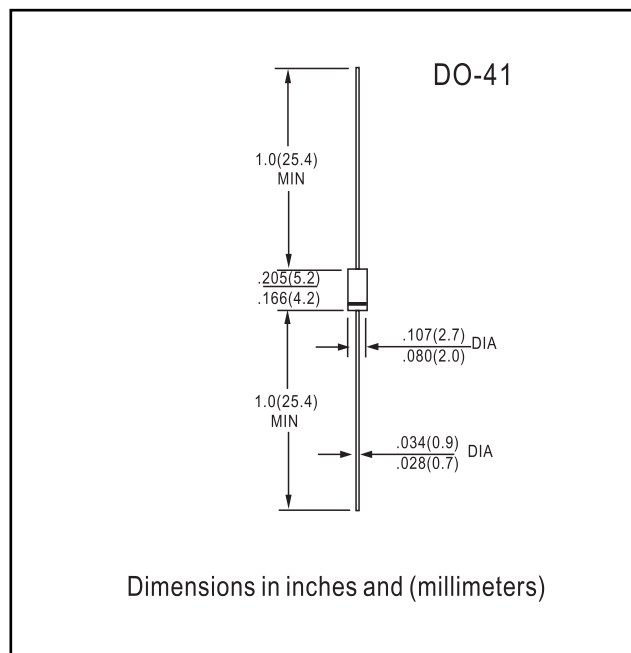
1000V 0.1A

## 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 : DO-41 Molded plastic  
 Epoxy : UL94V-O rate flame retardant  
 Lead : Axial lead solderable per MIL-STD-202,  
 Method 208 guaranteed  
 Polarity : Color band denotes cathode end  
 Mounting position : Any  
 Weight : 0.34 gram



## 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%.

		ERA34-10	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	1000	V
Maximum RMS voltage	$V_{RMS}$	700	V
Maximum DC blocking voltage	$V_{DC}$	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	0.1	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	$I_{FSM}$	10.0	A
Maximum instantaneous forward voltage @ 0.1 A	$V_F$	1.0	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	$\mu\text{A}$
Maximum reverse recovery time (Note1)	$t_{rr}$	150	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  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ .

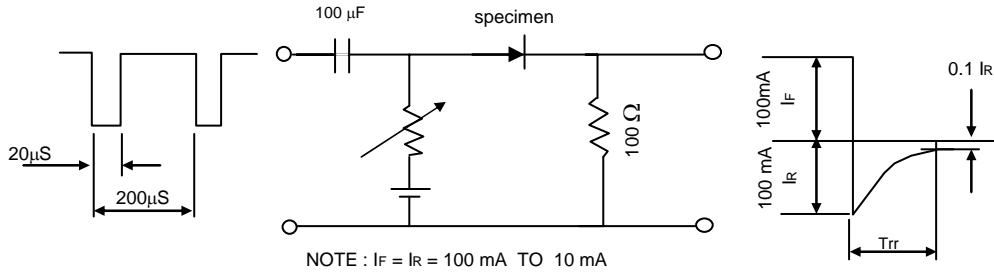
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient.

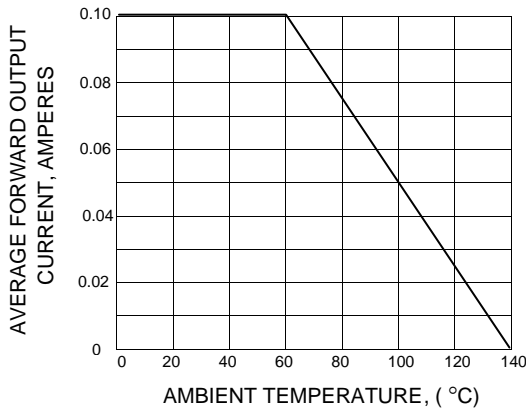


**RATINGS AND CHARACTERISTIC CURVES ERA34-10**

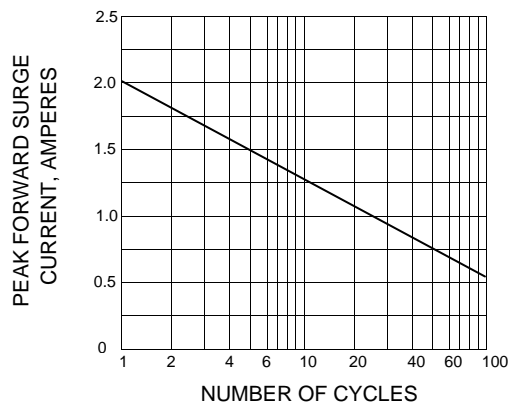
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



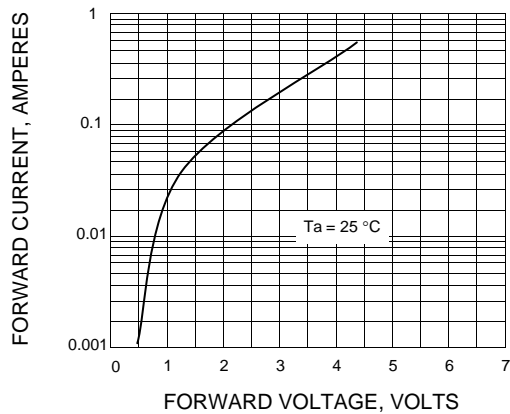
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

