



# TAYCHIPST FAST RECOVERY RECTIFIER

**TVR2B THRU TVR2J**

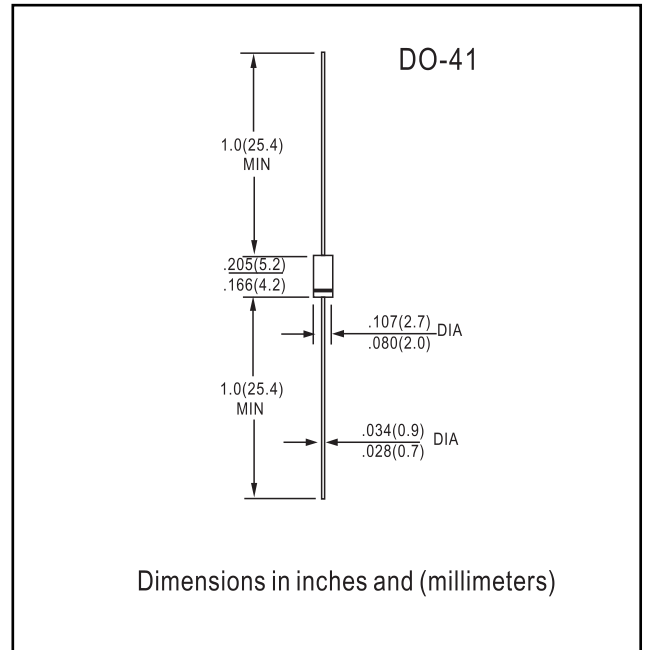
100V-600V 0.5A

## 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%.

		TVR2B	TVR2D	TVR2G	TVR2J	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	100	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	V
Maximum DC blocking voltage	$V_{DC}$	100	200	400	600	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	0.5				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	$V_F$	1.4				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)	$t_{rr}$	1000				ns
Typical junction capacitance (Note2)	$C_J$	15				pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	50				$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	- 55---- +150				$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55---- + 150				$^\circ\text{C}$

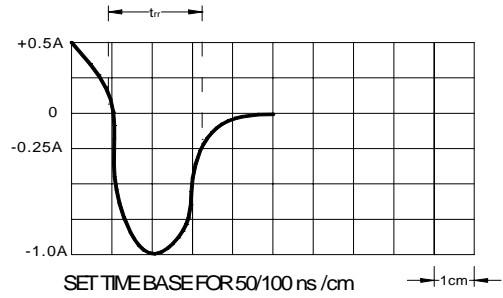
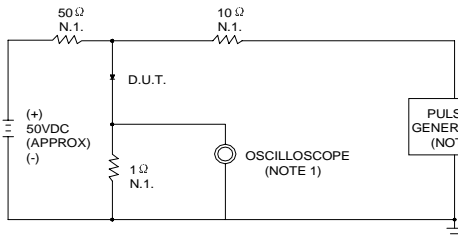
NOTE:1. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $t_{rr}=0.25\text{A}$ .

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

3. Thermal resistance from junction to ambient.

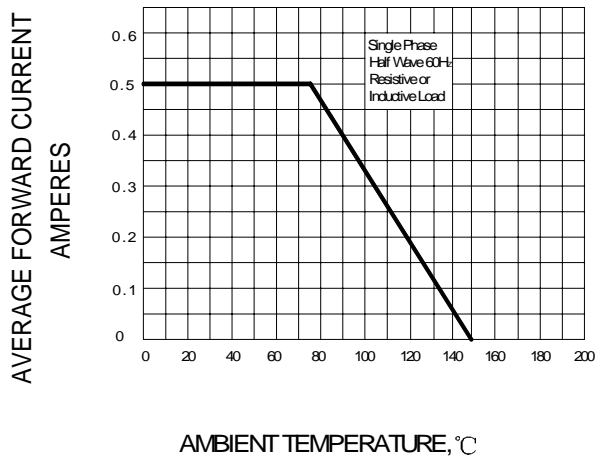
**RATINGS AND CHARACTERISTIC CURVES TVR2B THRU TVR2J**

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

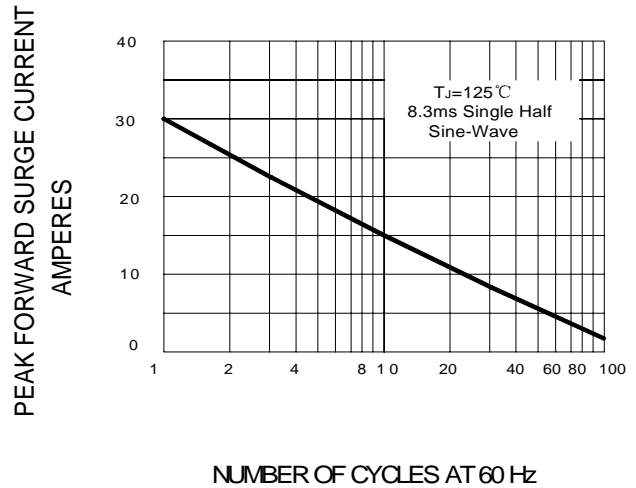


NOTES: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1MΩ, 22pF  
2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50Ω

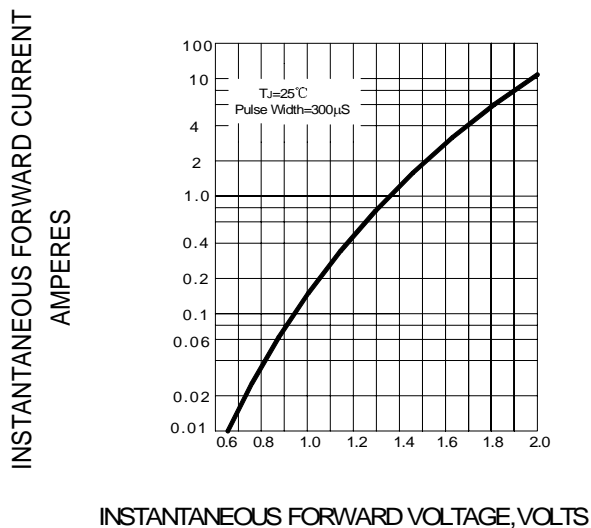
**FIG.2 – FORWARD DERATING CURVE**



**FIG.3 – PEAK FORWARD SURGE CURRENT**



**FIG.4 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.5 – TYPICAL JUNCTION CAPACITANCE**

