



TBYV26C

1.0 AMP. Glass Passivated Ultrafast Rectifiers



Voltage Range
600 Volts
Current
1.0 Ampere

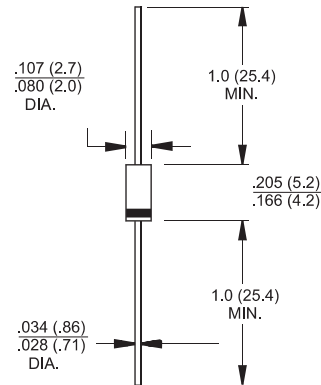
Features

- ✧ Low forward voltage drop high current capability
- ✧ Low leakage current
- ✧ Ultrafast recovery time for high efficiency
- ✧ High surge current capability

Mechanical Data

- ✧ Cases: Molded plastic DO-41
- ✧ Epoxy: UL 94V-O rate flame retardant
- ✧ Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode end
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 0.34gram

DO-41



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	TBYV26C	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_A = 55^\circ\text{C}$ (See Fig. 1)	$I_{(AV)}$	1.0	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30	A
Maximum Instantaneous Forward Voltage @ 1.0A $T_j = 25^\circ\text{C}$ $T_j = 175^\circ\text{C}$	V_F	2.5 1.3	V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 165^\circ\text{C}$	I_R	5.0 150	μA μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	30	nS
Typical Junction Capacitance (Note 2)	C_j	45	pF
Maximum Reverse recovery Current Slope di/dt @ $I_F = 1\text{A}$, $V_R = 30\text{V}$, $dl/dt = 1\text{A} / \mu\text{S}$	dv/dt	7	A/ μS
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	60	$^\circ\text{C/W}$
Operating Temperature Range	T_J	-65 to +175	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +175	$^\circ\text{C}$

Notes: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

3. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) Lead Length, Mount on 0.2" x 0.2" (5mm x 5mm) Cu pads.

RATINGS AND CHARACTERISTIC CURVES (TBYV26C)

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

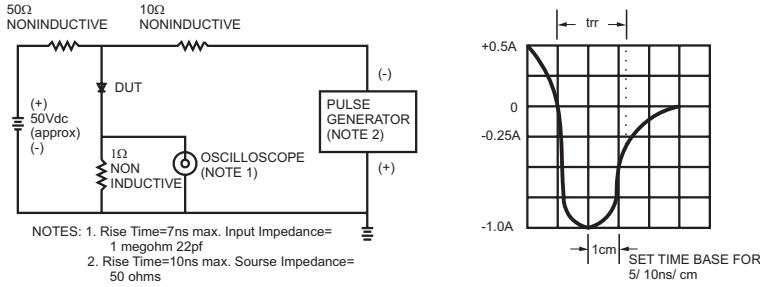


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

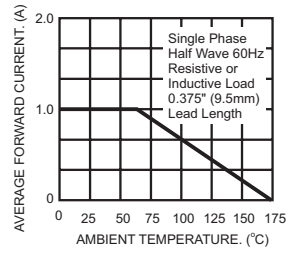


FIG.3- TYPICAL REVERSE CHARACTERISTICS

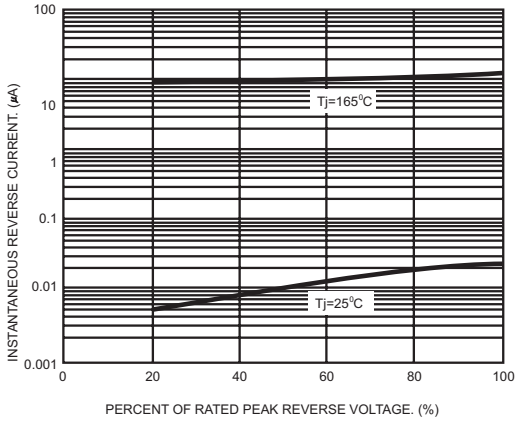


FIG.4- TYPICAL FORWARD CHARACTERISTICS

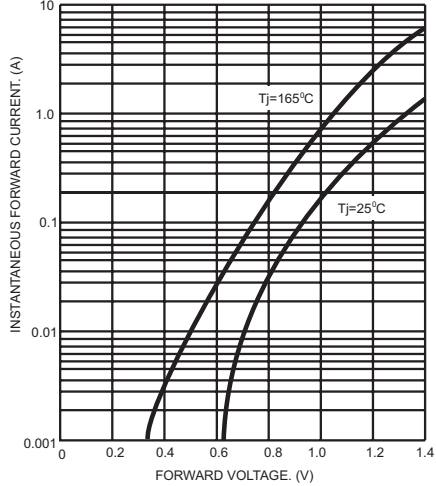


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

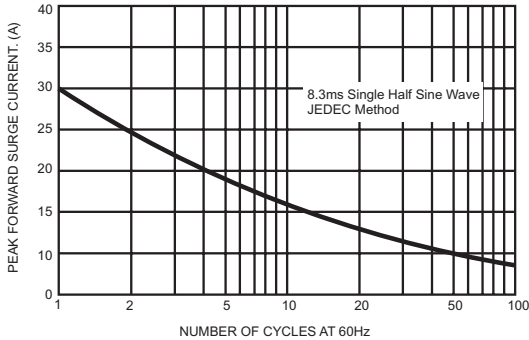


FIG.6- TYPICAL JUNCTION CAPACITANCE

