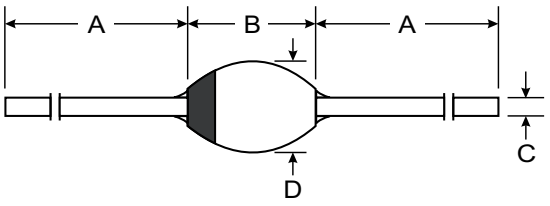
BYT40Y

1.0A HIGH VOLTAGE GLASS BODY RECTIFIER

Features

- Hermetically Sealed Glass Body Construction
- High Voltage to 1600V with Low Leakage
- Surge Overload Rating to 25A Peak



DOT-30B		
Dim	**Min**	**Max**
A	26.0	—
B	—	4.2
C	—	0.82
D	—	3.0
All Dimensions in mm		

Mechanical Data

- Case: DOT-30B, Glass
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.50 grams (approx.)

Maximum Ratings and Electrical Characteristics

@ T_j = 25°C unless otherwise specified

Characteristic	Symbol	BYT40Y	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	1600	V
RMS Reverse Voltage	$V_{R(RMS)}$	1130	V
Average Rectified Output Current @ T_A = 40°C	I_O	1.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25	A
Forward Voltage @ I_F = 1.0A	V_{FM}	1.3	V
Peak Reverse Leakage Current @ T_j = 25°C at Rated DC Blocking Voltage @ T_j = 150°C	I_{RM}	5.0 150	μA
Reverse Recovery Time (Note 2)	t_{rr}	3.0	μs
Typical Junction Capacitance (Note 3)	C_j	6.0	pF
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	60	K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150	°C

Notes:
1. Valid provided that leads are kept at ambient temperature at a distance of 10mm from the case.
2. Measured with I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A. See Figure 5.
3. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

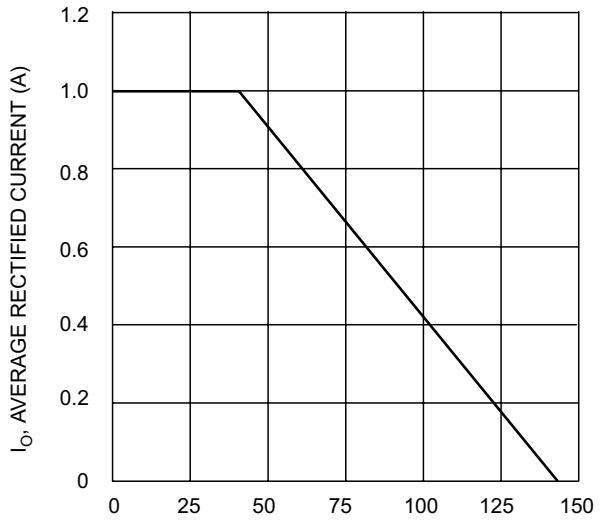


Fig. 1 Forward Current Derating Curve

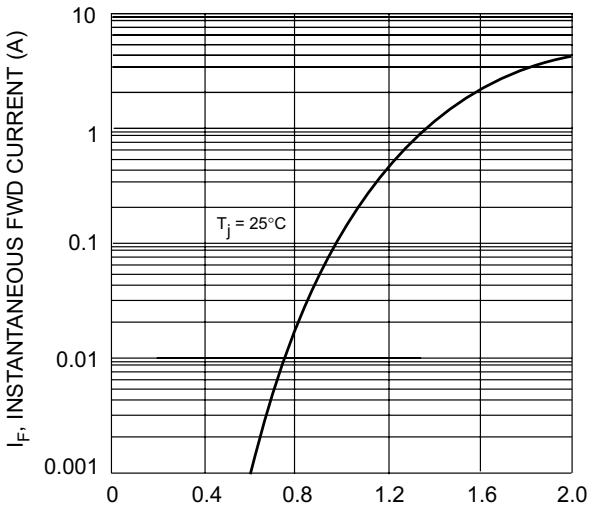


Fig. 2 Typical Forward Characteristics

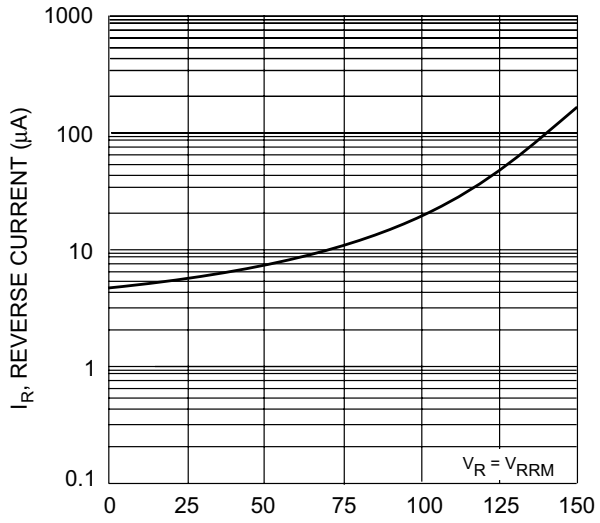


Fig. 3 Typical Reverse Characteristics

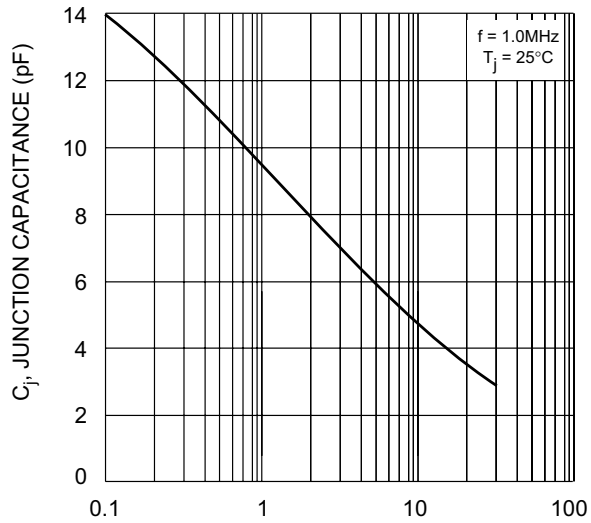
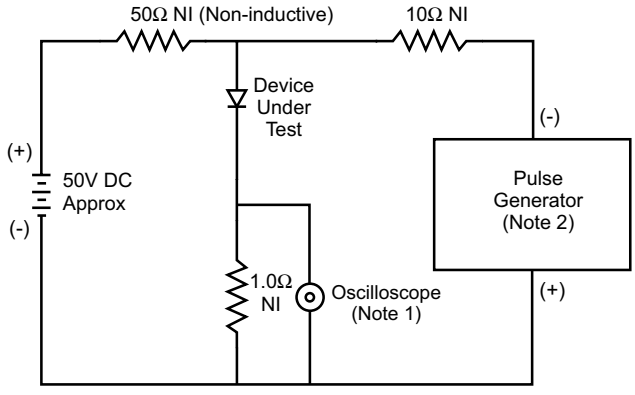


Fig. 4 Typical Junction Capacitance



Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
2. Rise Time = 10ns max. Input Impedance = 50Ω.

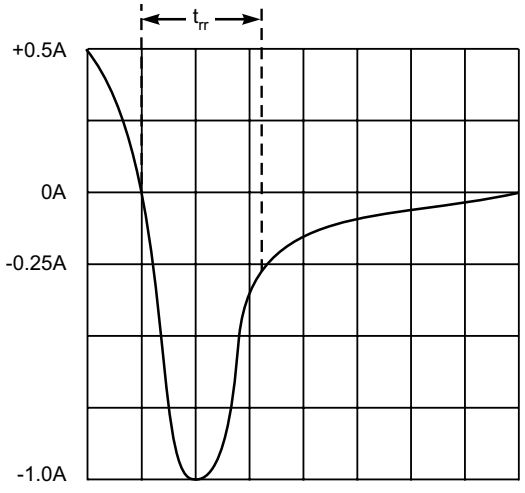


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit