

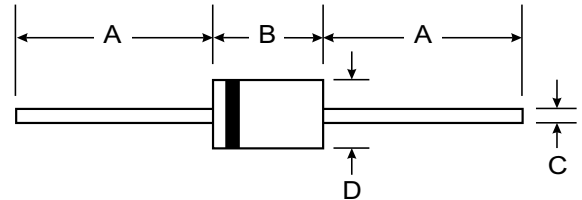
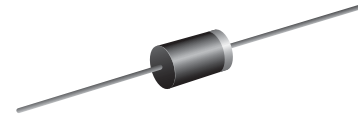
VOLTAGE RANGE: 200 - 1000V
CURRENT: 1.5 A

Features

- High current capability
- High surge current capability
- High reliability
- Low reverse current
- Low forward voltage drop
- Fast switching for high efficiency

Mechanical Data

- Case : DO-15 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 : 0.465 gram



| DO-15 | | |
|----------------------|-------|-------|
| Dim | Min | Max |
| A | 25.40 | — |
| B | 5.50 | 7.62 |
| C | 0.686 | 0.889 |
| D | 2.60 | 3.60 |
| All Dimensions in mm | | |



Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | BYV95A | BYV95B | BYV95C | BYV96D | BYV96E | Unit |
|---|-----------------|---------------|--------|--------|--------|--------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | V_{RMS} | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 200 | 400 | 600 | 800 | 1000 | Volts |
| Min. Avalanche Breakdown Voltage @ 100 μA | $V_{BR(min.)}$ | 300 | 500 | 700 | 900 | 1100 | Volts |
| Maximum Average Forward Rectified Current Lead Length 10 mm. ; $T_{tp} = 65^\circ\text{C}$ | $I_{F(AV)}$ | 1.5 | | | | | Amps. |
| Peak Forward Surge Current single half sine wave superimposed on rated load | I_{FSM} | 35 | | | | | Amps. |
| Maximum Forward Voltage at $I_F = 3.0$ Amps. | V_F | 1.6 | | | | | Volts |
| Maximum DC Reverse Current $T_J = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J = 165^\circ\text{C}$ | I_R | 5.0 | | | | | μA |
| | | 150 | | | | | |
| Maximum Reverse Recovery Time (Note 1) | T_{rr} | 150 | | | 200 | | ns |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 50 | | | | | $^\circ\text{C}/\text{W}$ |
| Junction Temperature Range | T_J | 175 | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | - 65 to + 175 | | | | | $^\circ\text{C}$ |

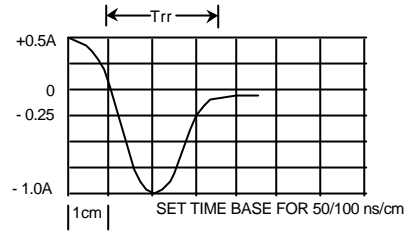
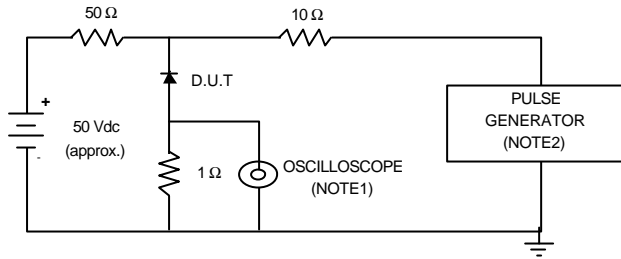
Notes :

(1) Measured with $I_F = 0.5\text{A}$, $R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$

(2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths. P.C. Board Mounted.

RATING AND CHARACTERISTIC CURVES (BYV95A - BYV96E)

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



NOTE : 1. Rise Time = 7ns max., Input Impedance = 1 megaohm, 22pF.
 2. Rise Time = 10ns max., Source Impedance = 50 ohms.
 3. All Resistors = Non-inductive Types.

FIG.2 - FORWARD CURRENT DERATING CURVE

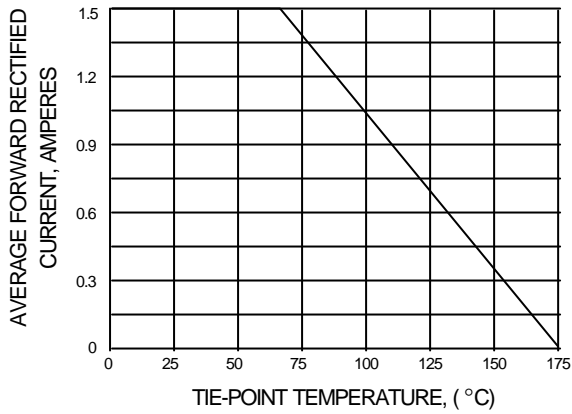


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

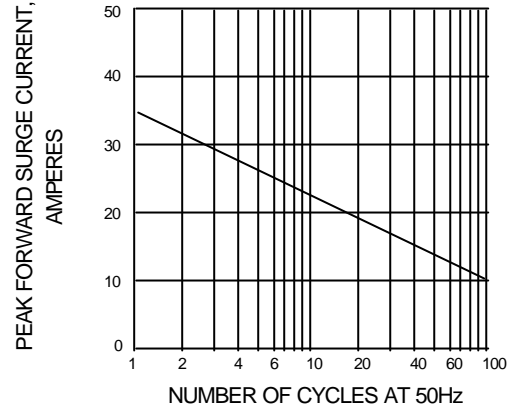


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

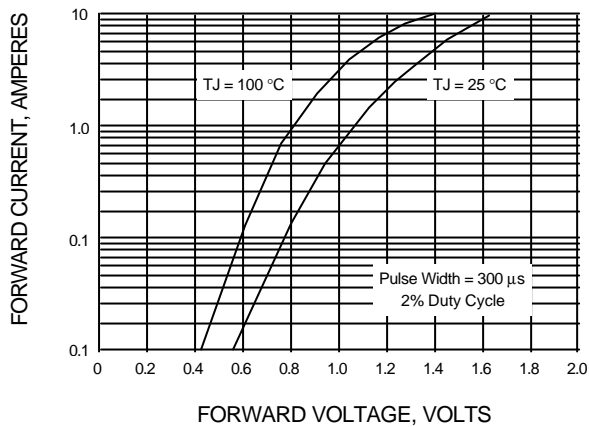


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

