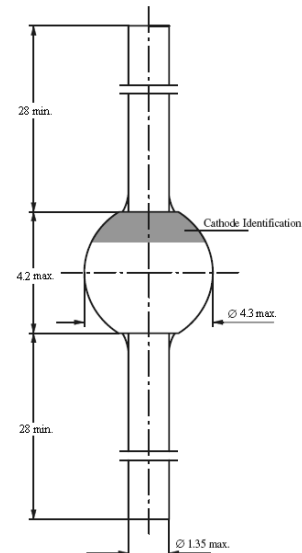


**BYM56C****SINTERED GLASS JUNCTION  
AVALANCHE RECTIFIER****VOLTAGE: 600V****CURRENT: 3.5A****FEATURE**

Glass passivated  
 High maximum operating temperature  
 Low leakage current  
 Excellent stability  
 Guaranteed avalanche energy absorption capability

**MECHANICAL DATA**

Case: SOD-64 sintered glass case  
 Terminal: Plated axial leads solderable per  
 MIL-STD 202E, method 208C  
 Polarity: color band denotes cathode end  
 Mounting position: any

**SOD-64**

Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

|   | SYMBOL         | BYM56C       | 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                         |
| Reverse avalanche breakdown voltage<br>at $I_R = 0.1 \text{ mA}$  | $V_{(BR)R}$    | 650min       | V                         |
| Maximum Average Forward Rectified<br>Current 3/8"lead length at $T_{tp} = 60^\circ\text{C}$                         | $I_{FAV}$      | 3.5          | A                         |
| Non-repetitive Peak Forward Surge Current at<br>$T_p = 10\text{ms}$ half sinewave                                   | $I_{FSM}$      | 80           | A                         |
| Maximum Forward Voltage at 3A and 25°C  | $V_F$          | 1.15         | V                         |
| Non-repetitive peak reverse avalanche energy<br>(Note 1)  | $E_{RSM}$      | 20           | mJ                        |
| Maximum DC Reverse Current<br>at rated DC blocking voltage<br>$T_a = 25^\circ\text{C}$<br>$T_a = 165^\circ\text{C}$ | $I_R$          | 1.0<br>150.0 | $\mu\text{A}$             |
| Diode Capacitance<br>(Note 2)   | $C_d$          | 90           | pF                        |
| Typical Thermal Resistance<br>(Note 3)  | $R_{th(ja)}$   | 75           | $^\circ\text{C}/\text{W}$ |
| Storage and Operating Junction Temperature  | $T_{stg}, T_j$ | -65 to +175  | $^\circ\text{C}$          |

Note:

1.  $L = 120\text{mH}$ ;  $T_j = T_{jmax}$  prior to surge; inductive load switched off
2. Measured at 1.0 MHz and applied reverse voltage of 0Vdc
3. Device mounted on an epoxy-glass printed-circuit board, 1.5mm thick

**RATINGS AND CHARACTERISTIC CURVES BYM56C**

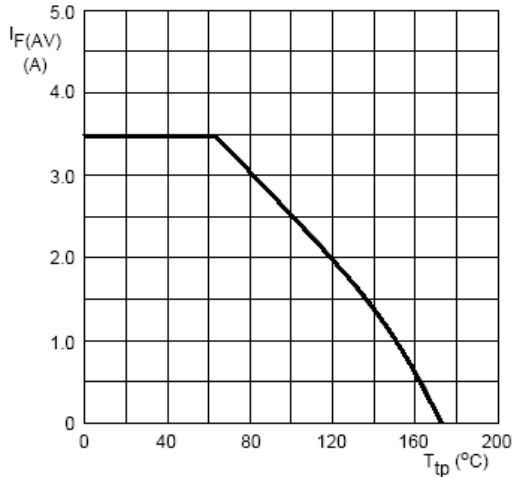


Fig.1 Maximum permissible average forward current as a function of tie-point temperature (including losses due to reverse leakage).

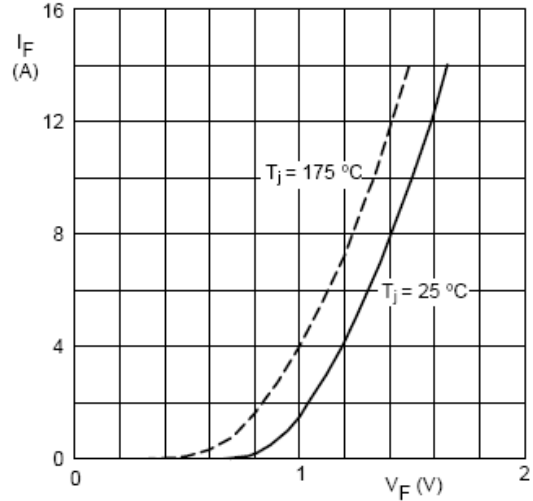


Fig.2 Forward current as a function of forward voltage; maximum values.

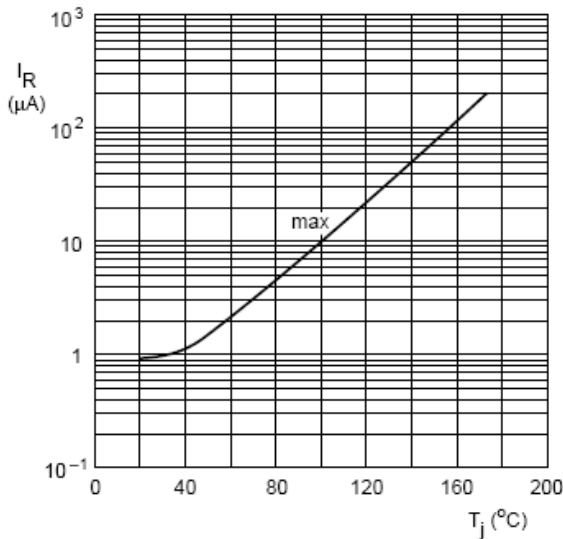


Fig.3 Reverse current as a function of junction temperature; maximum values.

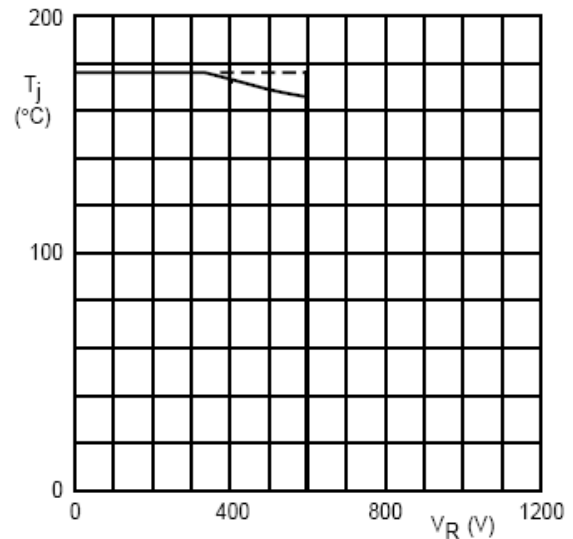


Fig.4 Maximum permissible junction temperature as a function of reverse voltage.

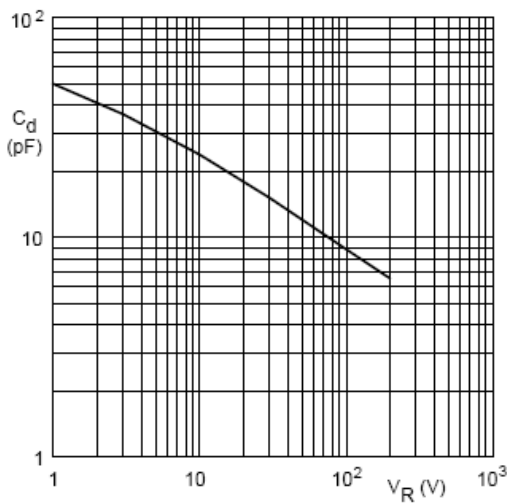


Fig.5 Diode capacitance as a function of reverse voltage; typical values.