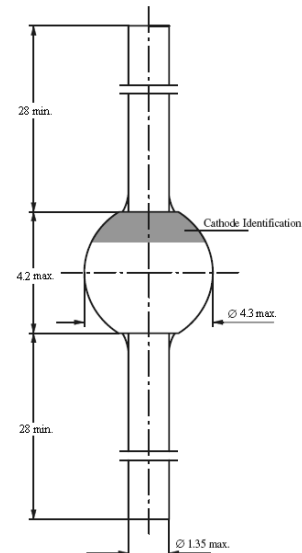


BYM56C**SINTERED GLASS JUNCTION
AVALANCHE RECTIFIER****VOLTAGE: 600V****CURRENT: 3.5A****FEATURE**

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 at $I_R = 0.1 \text{ mA}$	$V_{(BR)R}$	650min	V
Maximum Average Forward Rectified Current 3/8"lead length at $T_{tp} = 60^\circ\text{C}$	I_{FAV}	3.5	A
Non-repetitive Peak Forward Surge Current at $T_p = 10\text{ms}$ 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 (Note 1)	E_{RSM}	20	mJ
Maximum DC Reverse Current at rated DC blocking voltage $T_a = 25^\circ\text{C}$ $T_a = 165^\circ\text{C}$	I_R	1.0 150.0	μA
Diode Capacitance (Note 2)	C_d	90	pF
Typical Thermal Resistance (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

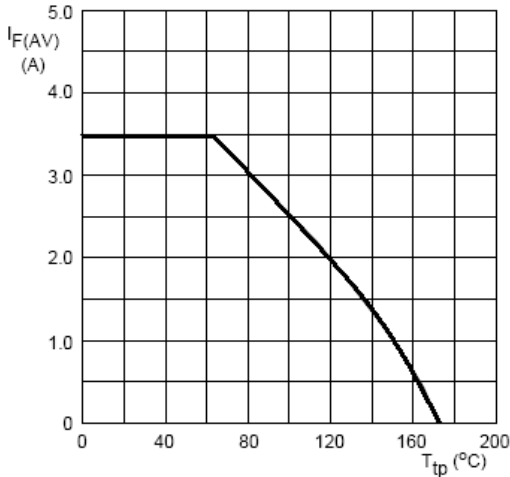


Fig.1 Maximum permissible average forward current as a function of tie-point temperature (including losses due to reverse leakage).

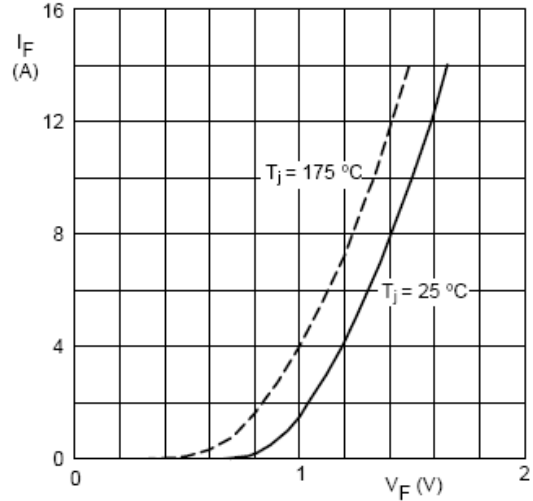


Fig.2 Forward current as a function of forward voltage; maximum values.

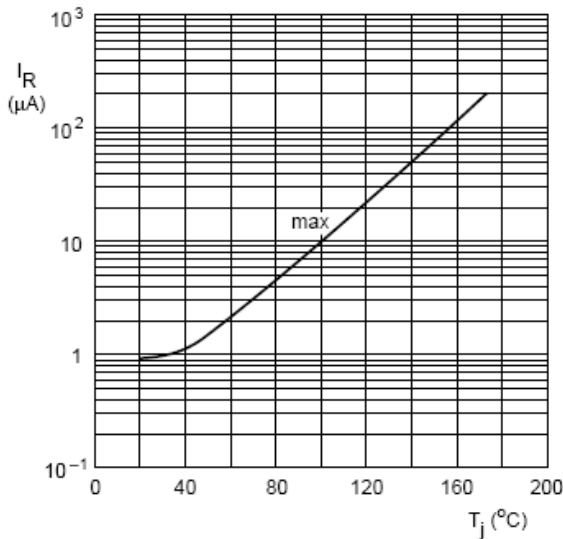


Fig.3 Reverse current as a function of junction temperature; maximum values.

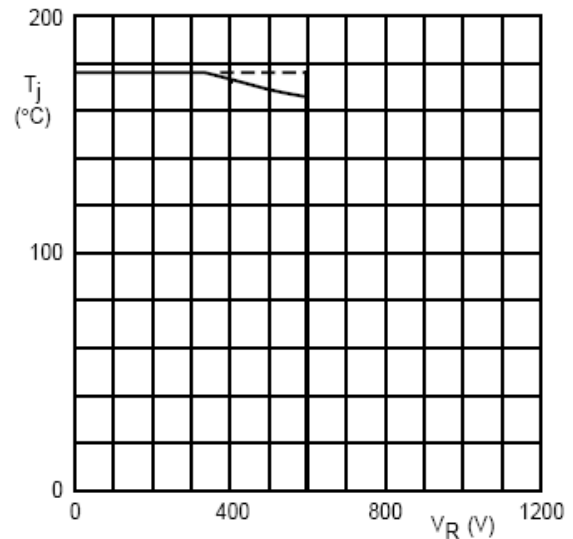


Fig.4 Maximum permissible junction temperature as a function of reverse voltage.

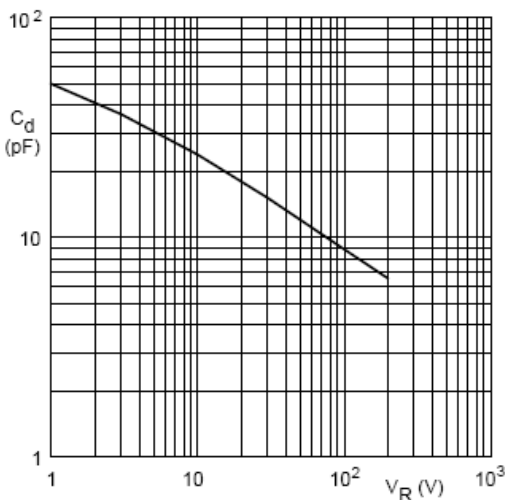


Fig.5 Diode capacitance as a function of reverse voltage; typical values.