

# BYM56C

## SINTERED GLASS JUNCTION AVALANCHE RECTIFIER

VOLTAGE: 600V

CURRENT: 3.5A



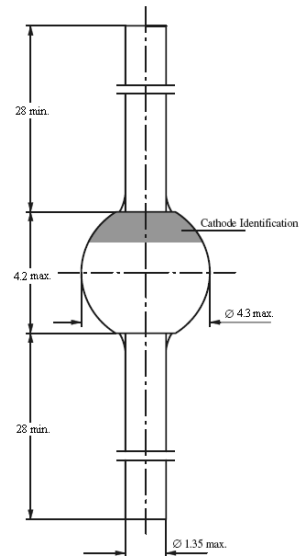
### FEATURE

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	$\mu\text{A}$
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

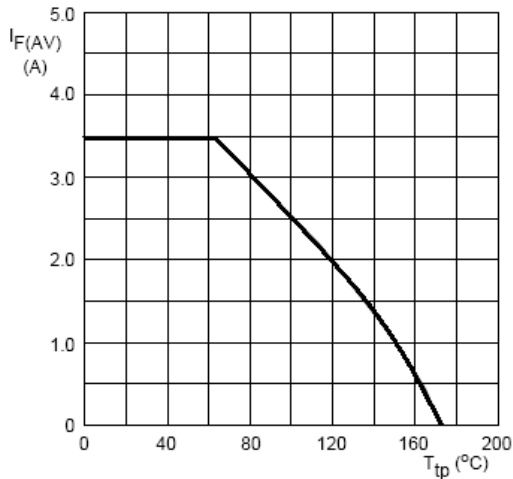


Fig.1 Maximum permissible average forward current as a function of tie-point temperature (including losses due to reverse leakage).

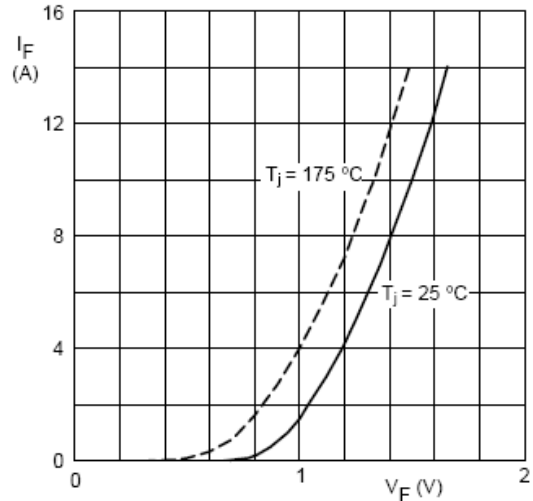


Fig.2 Forward current as a function of forward voltage; maximum values.

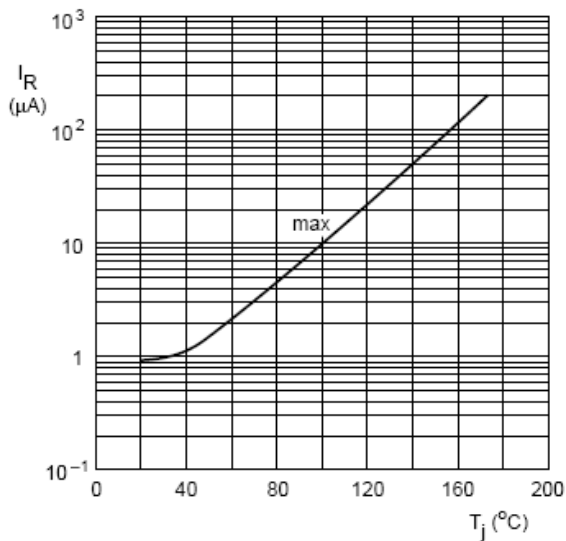


Fig.3 Reverse current as a function of junction temperature; maximum values.

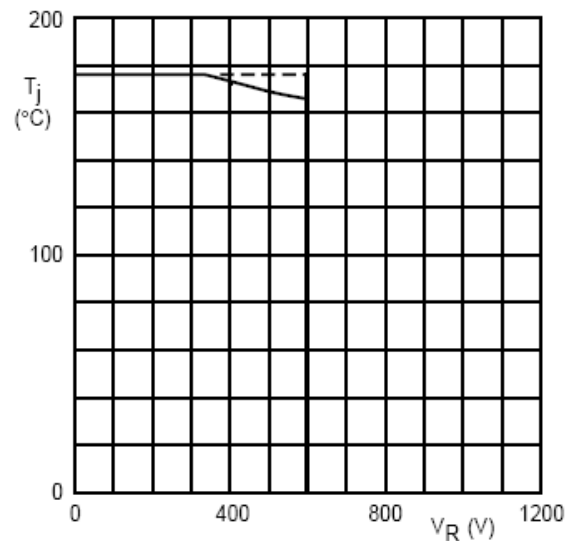


Fig.4 Maximum permissible junction temperature as a function of reverse voltage.

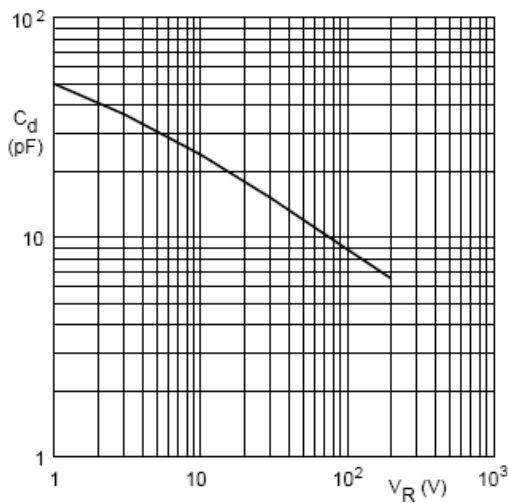


Fig.5 Diode capacitance as a function of reverse voltage; typical values.