

# BYV28-6

**SINTERED GLASS JUNCTION  
ULTRAFAST AVALANCHE RECTIFIER**  
VOLTAGE: 600V                      CURRENT: 3.1A



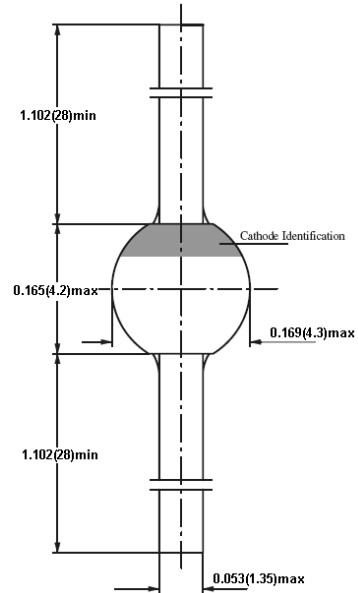
## FEATURE

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

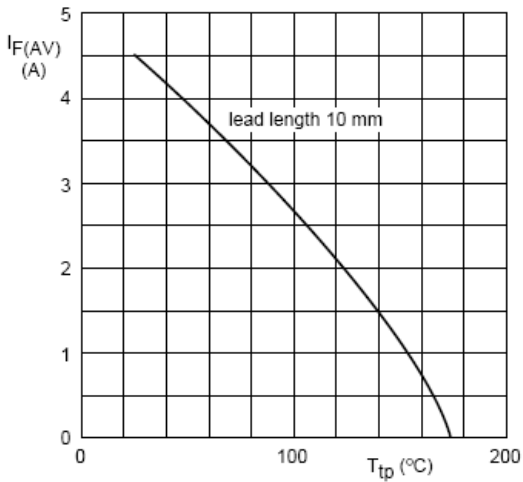
(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	BYV28-6	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
Maximum Average Forward Rectified Current 3/8"lead length at l =10mm	$I_{FAV}$	3.1	A
Peak Forward Surge Current at tp=10ms,half sinewave	$I_{FSM}$	90	A
Maximum Forward Voltage at Forward Current IF=3.5A and 25°C	$V_F$	1.25	V
Non-repetitive peak reverse avalanche energy (Note 1)	$E_{RSM}$	20	mJ
Maximum DC Reverse Current                      Ta =25°C at rated DC blocking voltage                      Ta =150°C	$I_R$	5.0 150.0	μA
Maximum Reverse Recovery Time                      (Note 2)	$T_{rr}$	50	nS
Typical Thermal Resistance                      (Note 3)	$R_{th(ja)}$	75	K/W
Storage and Operating Junction Temperature	$T_{stg}, T_j$	-65 to +175	°C

Note:

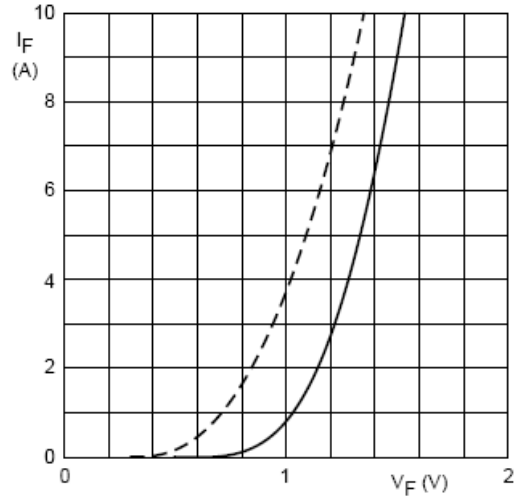
1. L=120Mh,Tj-Tjmax prior to surge; inductive load switched off
2. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
3. Device mounted on an epoxy-glass printed-circuit board, 1.5mm thick; thickness of Cu-layer ≥ 40 μ m

## RATINGS AND CHARACTERISTIC CURVES BYV28-6



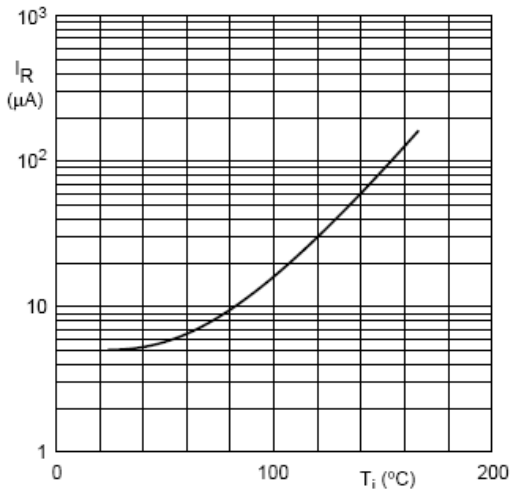
$a = 1.42$ ;  $V_R = V_{RRMmax}$ ;  $\delta = 0.5$ .  
Switched mode application.

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



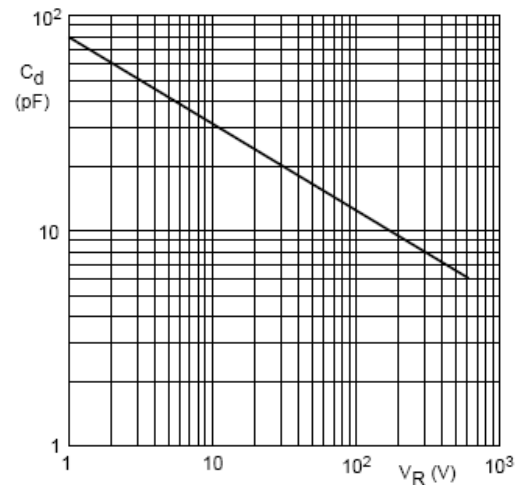
Dotted line:  $T_j = 175^{\circ}C$ .  
Solid line:  $T_j = 25^{\circ}C$ .

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



$V_R = V_{RRMmax}$ .

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



$f = 1 \text{ MHz}$ ;  $T_j = 25^{\circ}C$ .

Fig. 4 Diode capacitance as a function of reverse voltage; typical values.