

BYV28-6

SINTERED GLASS JUNCTION ULTRAFAST AVALANCHE RECTIFIER

VOLTAGE: 600V

CURRENT: 3.1A



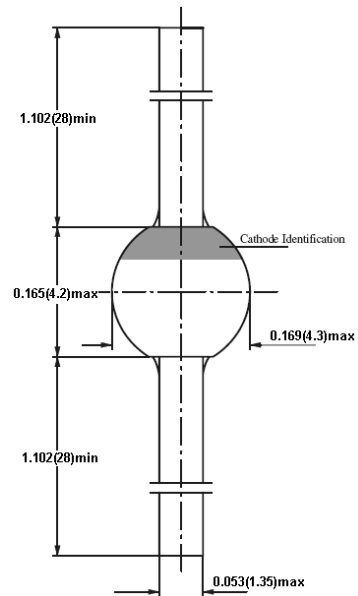
FEATURE

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

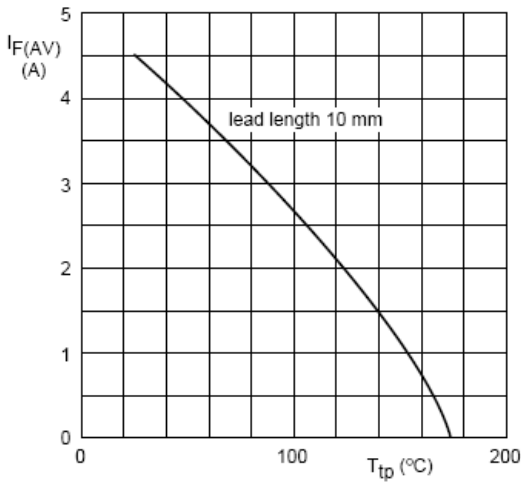
(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	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 at rated DC blocking voltage	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:

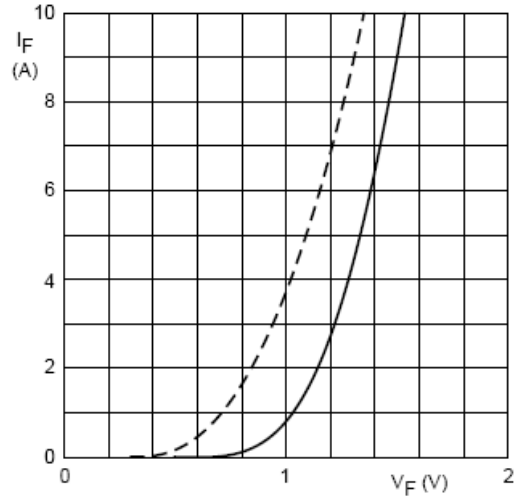
1. L=120Mh, $T_j - T_{jmax}$ prior to surge; inductive load switched off
2. Reverse Recovery Condition $I_f = 0.5A, I_r = 1.0A, I_{rr} = 0.25A$
3. Device mounted on an epoxy-glass printed-circuit board, 1.5mm thick; thickness of Cu-layer $\geq 40 \mu m$

RATINGS AND CHARACTERISTIC CURVES BYV28-6



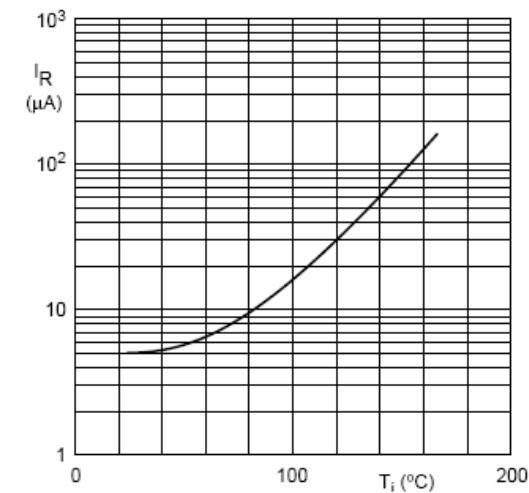
$a = 1.42$; $V_R = V_{RRMmax}$; $\delta = 0.5$.
Switched mode application.

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



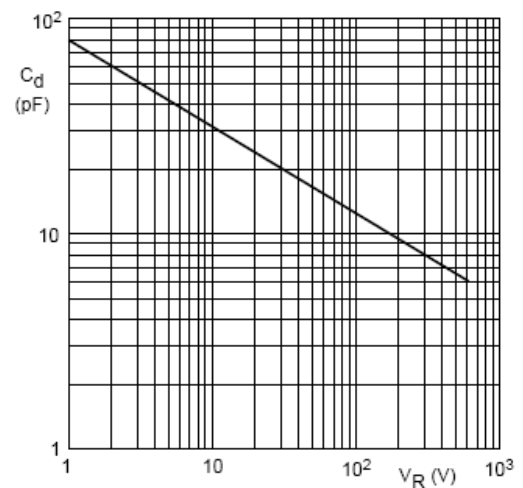
Dotted line: $T_j = 175^{\circ}C$.
Solid line: $T_j = 25^{\circ}C$.

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.



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

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