

BYV36C

SINTERED GLASS JUNCTION FAST AVALANCHE RECTIFIER

VOLTAGE: 600V

CURRENT: 1.6A



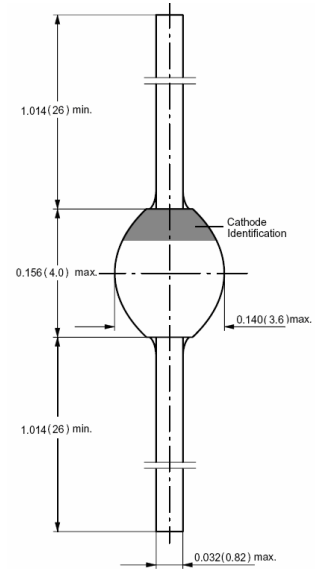
FEATURE

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

MECHANICAL DATA

- Case: SOD-57 sintered glass case
- Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
- Polarity: color band denotes cathode end
- Mounting position: any

SOD-57



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	BYV36C	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 Breakdown Voltage at $I_R = 0.1mA$	$V_{(BR)R}$	700min	V
Maximum Average Forward Rectified Current at $T_{tp}=60^\circ C$, lead length=10mm	$I_{F(AV)}$	1.6	A
Peak Forward Surge Current at $t=10ms$ half sine wave	I_{FSM}	30	A
Maximum Forward Voltage at rated Forward Current and 25°C $I_F = 1.0A$	V_F	1.35	V
Maximum DC Reverse Current at rated DC blocking voltage $T_j = 25^\circ C$ $T_j = 165^\circ C$	I_R	5.0 150	μA μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	100	nS
Non Repetitive Reverse Avalanche Energy at $L=120Mh$	E_R	10	mJ
Typical Diode Capacitance at $f=1MHz, V_R=0V$	C_d	45	pF
Typical Thermal Resistance (Note 2)	$R_{th(ja)}$	100	K/W
Storage and Operating Junction Temperature	T_{stg}, T_j	-65 to +175	°C

Note:

- Reverse Recovery Condition $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$
- Device mounted on an epoxy-glass printed-circuit boards, 1.5mm thick; thickness of Cu-layer $\geq 40 \mu m$

RATINGS AND CHARACTERISTIC CURVES BYV36C

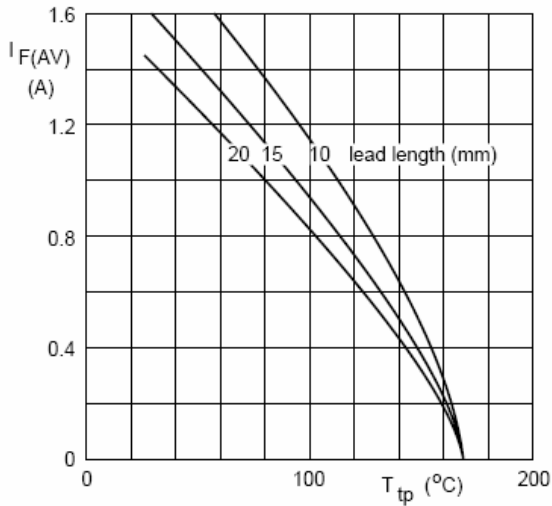
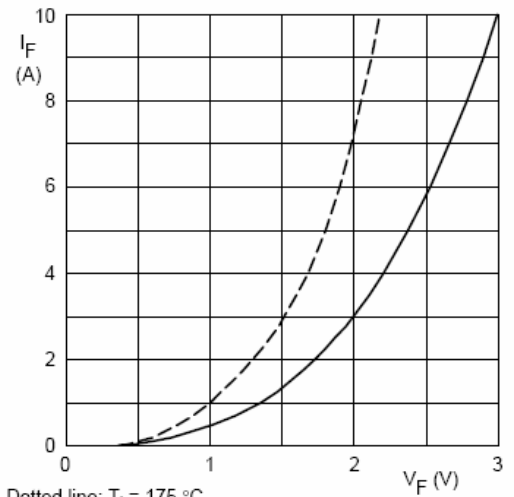


Fig.1 Maximum average forward current as a function of tie-point temperature (including losses due to reverse leakage).



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

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

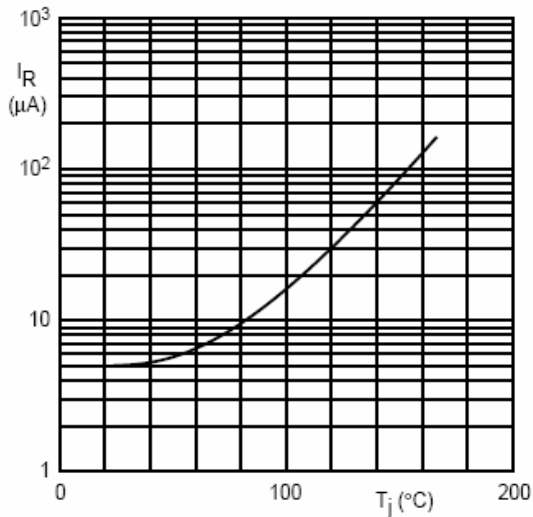


Fig.3 Reverse current as a function of junction temperature; maximum values.

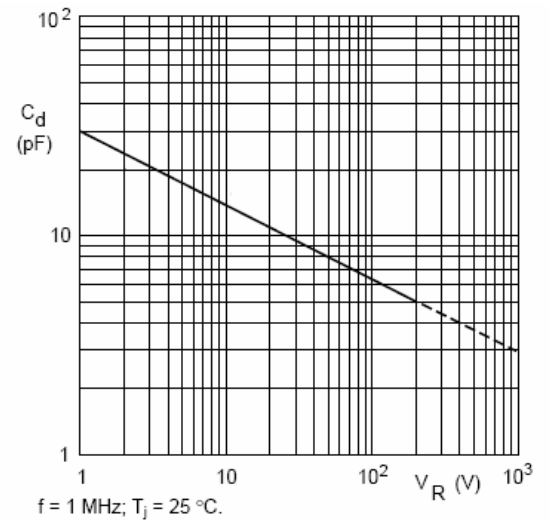


Fig.4 Diode capacitance as a function of reverse voltage, typical values.

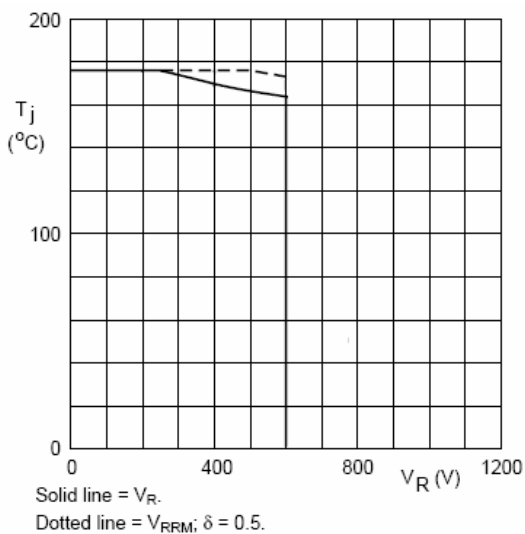


Fig.5 Maximum permissible junction temperature as a function of reverse voltage.