

# BYV26G

## SINTERED GLASS JUNCTION FAST AVALANCHE RECTIFIER

VOLTAGE: 1400V

CURRENT: 1.05A



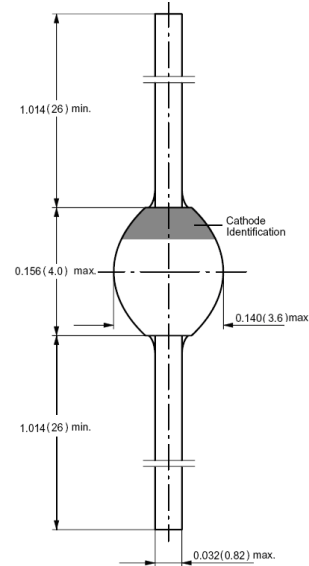
### FEATURE

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 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	BYV26G	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1400	V
Maximum RMS Voltage	$V_{RMS}$	980	V
Maximum DC blocking Voltage	$V_{DC}$	1400	V
Reverse avalanche breakdown voltage $I_R = 0.1 \text{ mA}$	$V_{(BR)R}$	1500min	V
Maximum Average Forward Rectified Current 3/8" lead length at $T_{tp} = 85^\circ\text{C}$	$I_{FAV}$	1.05	A
Non-repetitive Peak Forward Current at $t = 10\text{ms}$ half sine wave	$I_{FSM}$	30	A
Maximum Forward Voltage at 1.0A	$V_F$	2.15	V
Non-repetitive peak reverse avalanche energy (Note 1)	$E_{RSM}$	10	mJ
Maximum DC Reverse Current at rated DC blocking voltage $T_a = 25^\circ\text{C}$ $T_a = 165^\circ\text{C}$	$I_R$	5.0 150.0	$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	150	nS
Diode Capacitance (Note 3)	$C_d$	35	pF
Typical Thermal Resistance (Note 4)	$R_{th(ja)}$	100	K/W
Storage and Operating Junction Temperature	$T_{stg}, T_j$	-65 to +175	$^\circ\text{C}$

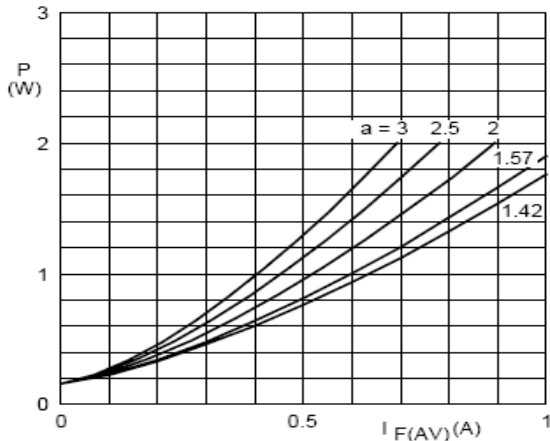
Note:

- $I_R = 400\text{mA}$ ;  $T_j = T_{jmax}$  prior to surge; inductive load switched off
- Reverse Recovery Condition  $I_f = 0.5\text{A}$ ,  $I_r = 1.0\text{A}$ ,  $I_{rr} = 0.25\text{A}$
- Measured at 1.0 MHz and applied reverse voltage of 0Vdc
- Device mounted on an epoxy-glass printed-circuit board, 1.5mm thick

Rev.A1

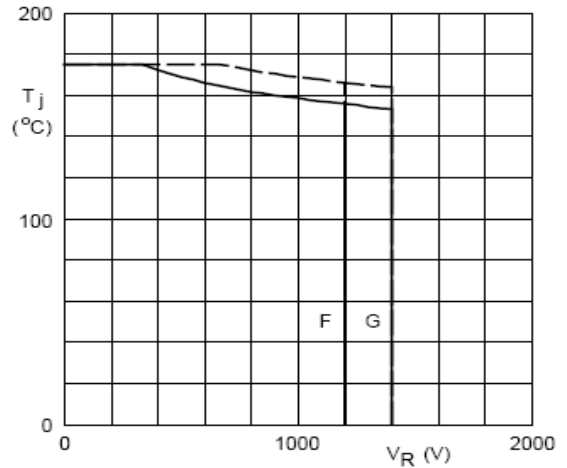
www.gulfsemi.com

## RATINGS AND CHARACTERISTIC CURVES BYV26G



$a = I_{F(RMS)}/I_{F(AV)}$ ;  $V_R = V_{RRMmax}$ ;  $\delta = 0.5$ .

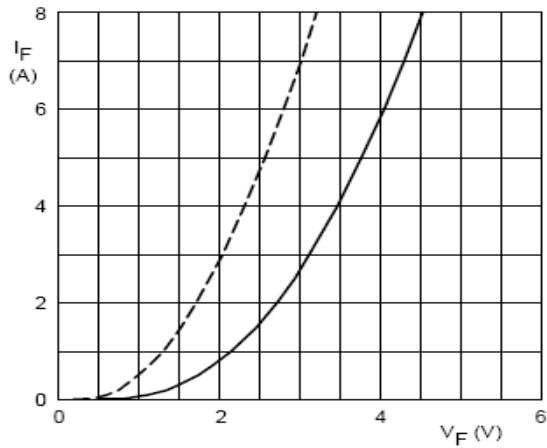
Fig. 1 Maximum steady state power dissipation (forward plus leakage current losses, excluding switching losses) as a function of average forward current.



Solid line =  $V_R$ .

Dotted line =  $V_{RRM}$ ;  $\delta = 0.5$ .

Fig. 2 Maximum permissible junction temperature as a function of reverse voltage.



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

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

Fig. 3 Forward current as a function of forward voltage; maximum values.

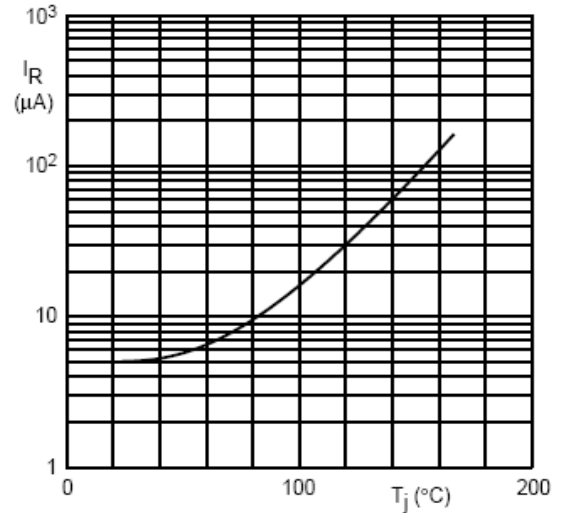
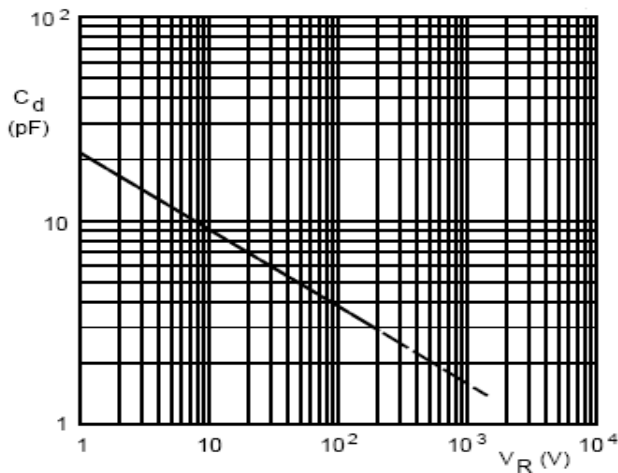


Fig. 4 Reverse current as a function of junction temperature; maximum values.



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

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