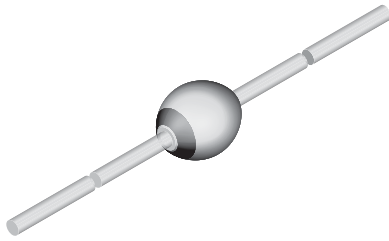


## Ultra-Fast Avalanche Sinterglass Diode



949539

### FEATURES

- Glass passivated junction
- Hermetically sealed package
- Very low switching losses
- Low reverse current
- High reverse voltage
- Material categorization:  
For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

### MECHANICAL DATA

**Case:** SOD-57

**Terminals:** plated axial leads, solderable per MIL-STD-750, method 2026

**Polarity:** color band denotes cathode end

**Mounting position:** any

**Weight:** approx. 369 mg

### APPLICATIONS

- Switched mode power supplies
- High-frequency inverter circuits

ORDERING INFORMATION (Example)			
DEVICE NAME	ORDERING CODE	TAPED UNITS	MINIMUM ORDER QUANTITY
BYV26E	BYV26E-TR	5000 per 10" tape and reel	25 000
BYV26E	BYV26E-TAP	5000 per ammpack	25 000

PARTS TABLE		
PART	TYPE DIFFERENTIATION	PACKAGE
BYV26A	$V_R = 200\text{ V}; I_{F(AV)} = 1\text{ A}$	SOD-57
BYV26B	$V_R = 400\text{ V}; I_{F(AV)} = 1\text{ A}$	SOD-57
BYV26C	$V_R = 600\text{ V}; I_{F(AV)} = 1\text{ A}$	SOD-57
BYV26D	$V_R = 800\text{ V}; I_{F(AV)} = 1\text{ A}$	SOD-57
BYV26E	$V_R = 1000\text{ V}; I_{F(AV)} = 1\text{ A}$	SOD-57

ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25\text{ }^\circ\text{C}$ , unless otherwise specified)					
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Reverse voltage = repetitive peak reverse voltage	See electrical characteristics	BYV26A	$V_R = V_{RRM}$	200	V
		BYV26B	$V_R = V_{RRM}$	400	V
		BYV26C	$V_R = V_{RRM}$	600	V
		BYV26D	$V_R = V_{RRM}$	800	V
		BYV26E	$V_R = V_{RRM}$	1000	V
Peak forward surge current	$t_p = 10\text{ ms}$ , half sine wave		$I_{FSM}$	30	A
Average forward current			$I_{F(AV)}$	1	A
Non repetitive reverse avalanche energy	$I_{(BR)R} = 1\text{ A}$ , inductive load		$E_R$	10	mJ
Junction and storage temperature range			$T_j = T_{stg}$	- 55 to + 175	$^\circ\text{C}$

MAXIMUM THERMAL RESISTANCE ( $T_{amb} = 25\text{ }^\circ\text{C}$ , unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Junction ambient	$l = 10\text{ mm}$ , $T_L = \text{constant}$	$R_{thJA}$	45	K/W



ELECTRICAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	I <sub>F</sub> = 1 A		V <sub>F</sub>	-	-	2.5	V
	I <sub>F</sub> = 1 A, T <sub>j</sub> = 175 °C		V <sub>F</sub>	-	-	1.3	V
Reverse current	V <sub>R</sub> = V <sub>RRM</sub>		I <sub>R</sub>	-	-	5	μA
	V <sub>R</sub> = V <sub>RRM</sub> , T <sub>j</sub> = 150 °C		I <sub>R</sub>	-	-	100	μA
Reverse breakdown voltage	I <sub>R</sub> = 100 μA	BYV26A	V <sub>(BR)R</sub>	300	-	-	V
		BYV26B	V <sub>(BR)R</sub>	500	-	-	V
		BYV26C	V <sub>(BR)R</sub>	700	-	-	V
		BYV26D	V <sub>(BR)R</sub>	900	-	-	V
		BYV26E	V <sub>(BR)R</sub>	1100	-	-	V
Reverse recovery time	I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1 A, i <sub>R</sub> = 0.25 A	BYV26A	t <sub>rr</sub>	-	-	30	ns
		BYV26B	t <sub>rr</sub>	-	-	30	ns
		BYV26C	t <sub>rr</sub>	-	-	30	ns
		BYV26D	t <sub>rr</sub>	-	-	75	ns
		BYV26E	t <sub>rr</sub>	-	-	75	ns

TYPICAL CHARACTERISTICS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

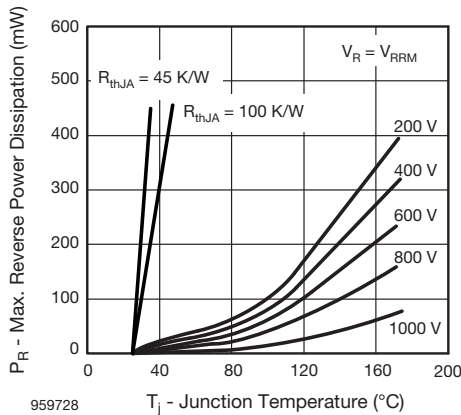


Fig. 1 - Max. Reverse Power Dissipation vs. Junction Temperature

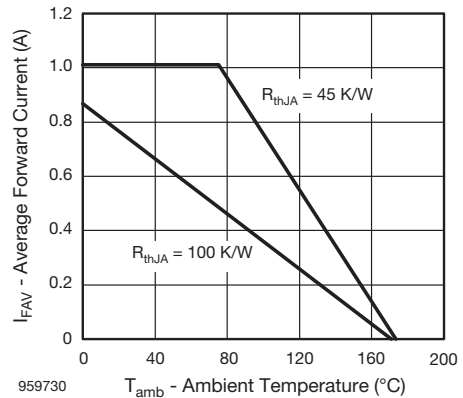


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

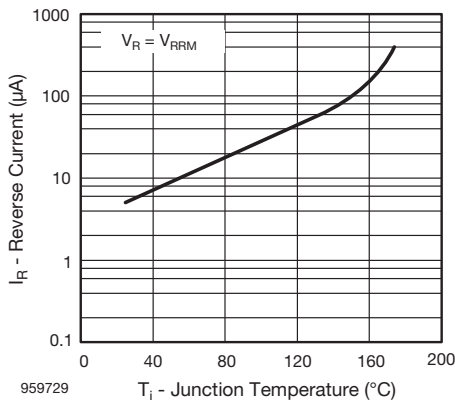


Fig. 2 - Max. Reverse Current vs. Junction Temperature

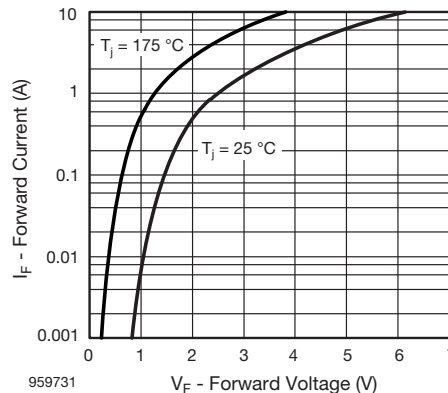


Fig. 4 - Max. Forward Current vs. Forward Voltage

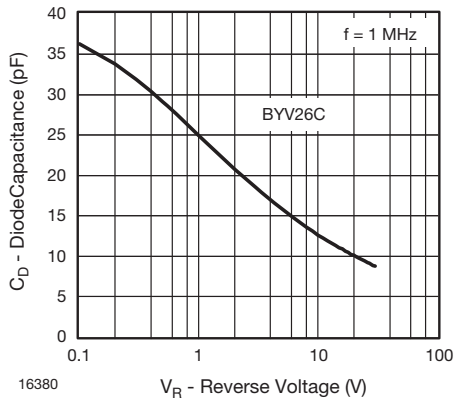


Fig. 5 - Diode Capacitance vs. Reverse Voltage

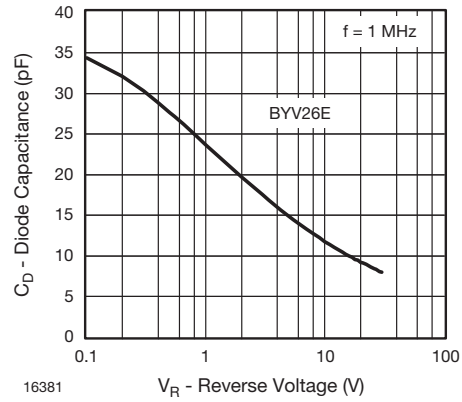
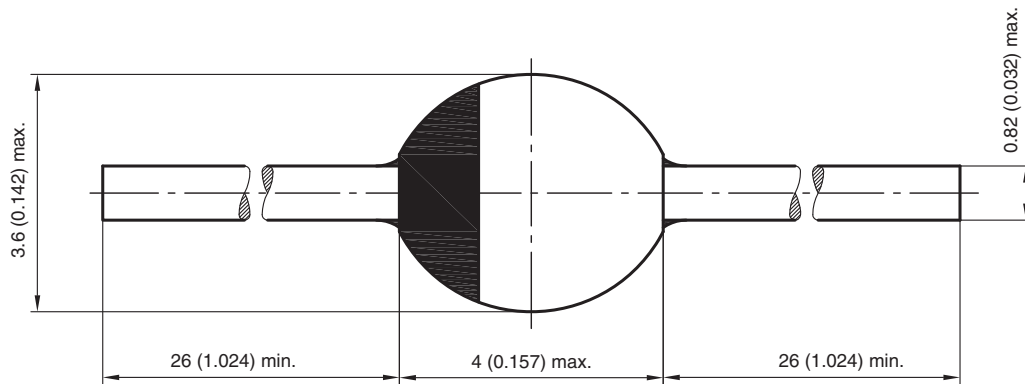


Fig. 6 - Diode Capacitance vs. Reverse Voltage

**PACKAGE DIMENSIONS** in millimeters (inches): **SOD-57**



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