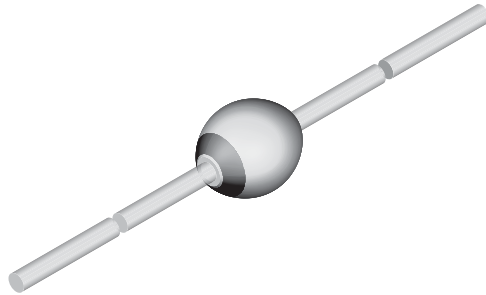


## Fast Avalanche Sinterglass Diode



### FEATURES

- Glass passivated junction
- Hermetically sealed package
- Material categorization:  
For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



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

### APPLICATIONS

- High voltage fast rectification diode

949539

### 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

### ORDERING INFORMATION (Example)

DEVICE NAME	ORDERING CODE	TAPED UNITS	MINIMUM ORDER QUANTITY
BY269	BY269TR	5000 per 10" tape and reel	25 000
BY269	BY269TAP	5000 per ammopack	25 000

### PARTS TABLE

PART	TYPE DIFFERENTIATION	PACKAGE
BY268	$V_R = 1400\text{ V}; I_{F(AV)} = 0.8\text{ A}$	SOD-57
BY269	$V_R = 1600\text{ V}; I_{F(AV)} = 0.8\text{ A}$	SOD-57

### ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25\text{ }^\circ\text{C}$ , unless otherwise specified)

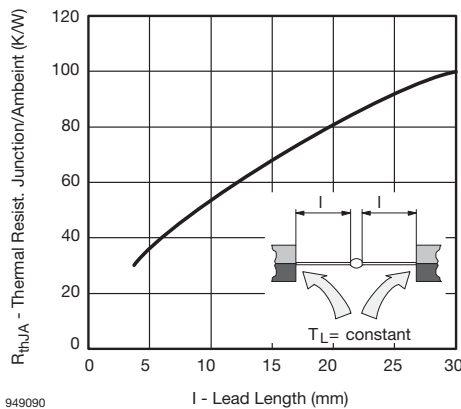
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Peak reverse voltage, non repetitive		BY268	$V_{RSM}$	1600	V
		BY269	$V_{RSM}$	1800	V
Reverse voltage	See electrical characteristics	BY268	$V_R$	1400	V
		BY269	$V_R$	1600	V
Peak forward surge current	$t_p = 10\text{ ms}$ , half sine wave		$I_{FSM}$	20	A
Average forward current			$I_{F(AV)}$	0.8	A
Non repetitive reverse avalanche energy	$I_{(BR)R} = 0.4\text{ A}$		$E_R$	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	Lead length $l = 10\text{ mm}$ , $T_L = \text{constant}$	$R_{thJA}$	45	K/W
	On PC board with spacing 25 mm	$R_{thJA}$	100	K/W

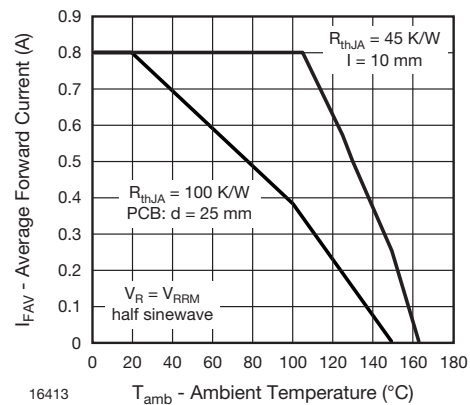
**ELECTRICAL CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 0.4\text{ A}$		$V_F$	-	-	1.25	V
Reverse current	$V_R = 1400\text{ V}$	BY268	$I_R$	-	1	2	$\mu\text{A}$
	$V_R = 1600\text{ V}$	BY269	$I_R$	-	1	2	$\mu\text{A}$
	$V_R = 1400\text{ V}, T_j = 100\text{ }^{\circ}\text{C}$	BY268	$I_R$	-	-	15	$\mu\text{A}$
	$V_R = 1600\text{ V}, T_j = 100\text{ }^{\circ}\text{C}$	BY269	$I_R$	-	-	15	$\mu\text{A}$
Reverse recovery time	$I_F = 0.5\text{ A}, I_R = 1\text{ A}, i_R = 0.25\text{ A}$		$t_{rr}$	-	-	400	ns

**TYPICAL CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)


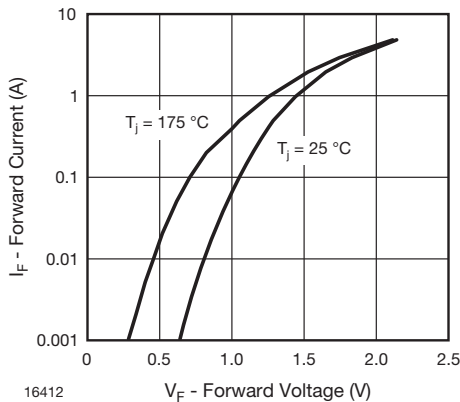
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Fig. 1 - Max. Thermal Resistance vs. Lead Length



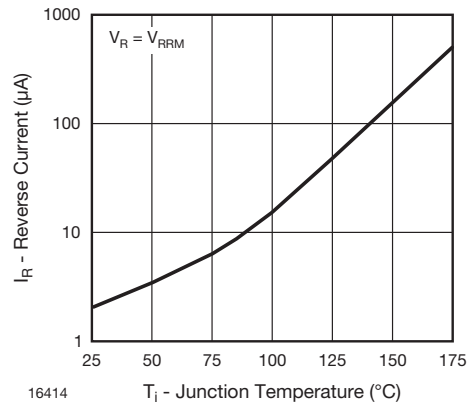
16413

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



16412

Fig. 2 - Max. Forward Current vs. Forward Voltage



16414

Fig. 4 - Max. Reverse Current vs. Junction Temperature

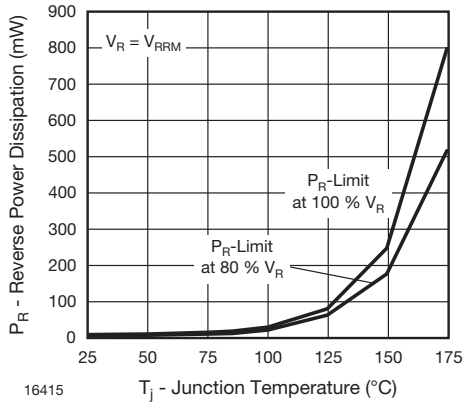


Fig. 5 - Max. Reverse Power Dissipation vs. Junction Temperature

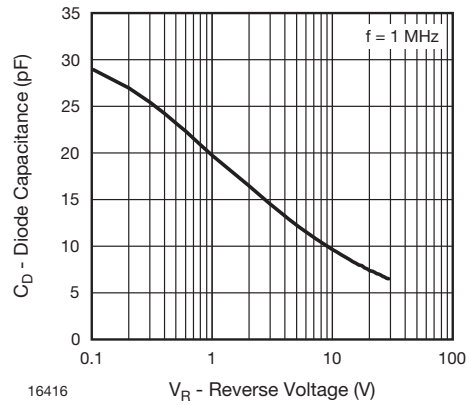
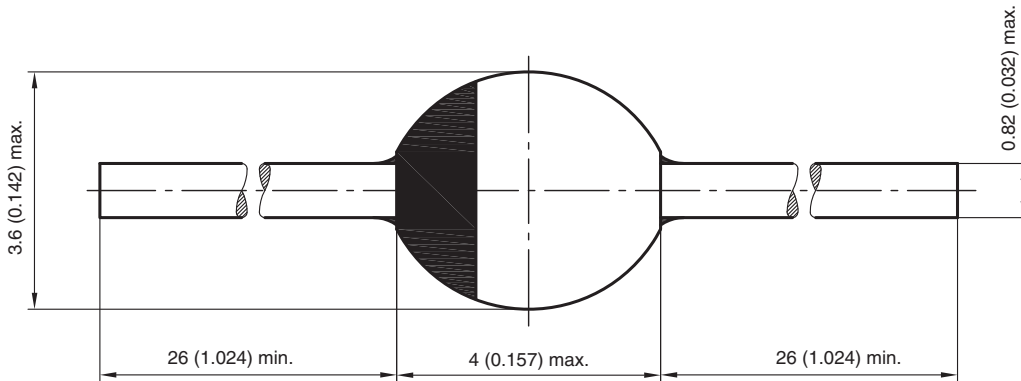


Fig. 6 - Diode Capacitance vs. Reverse Voltage

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



20543  
 Rev. 3 - Date: 09.February 2005  
 Document no.:6.563-5006.3-4



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