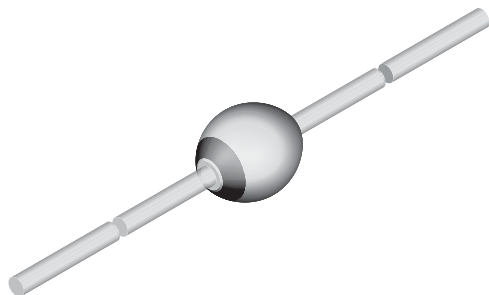


Fast Avalanche Sinterglass Diode



FEATURES

- Glass passivated junction
- Hermetically sealed package
- Material categorization:
For definitions of compliance please see 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
BY268	BY268TR	5000 per 10" tape and reel	25 000
BY269	BY269TAP	5000 per ammpack	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	μA
	$V_R = 1600\text{ V}$	BY269	I_R	-	1	2	μA
	$V_R = 1400\text{ V}, T_J = 100\text{ }^{\circ}\text{C}$	BY268	I_R	-	-	15	μA
	$V_R = 1600\text{ V}, T_J = 100\text{ }^{\circ}\text{C}$	BY269	I_R	-	-	15	μA
Reverse recovery time	$I_F = 0.5\text{ A}, I_R = 1\text{ A}, i_R = 0.25\text{ A}$		t_{rr}	-	-	400	ns

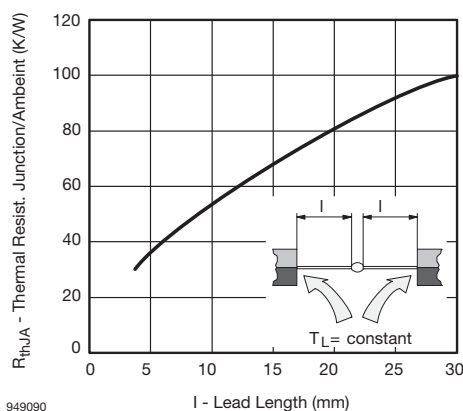
TYPICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)


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

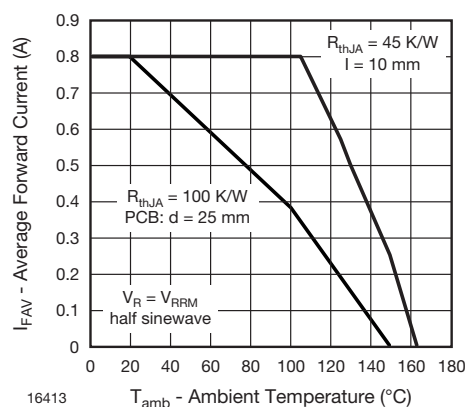


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

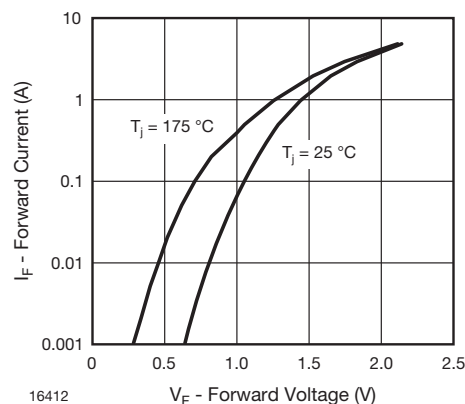


Fig. 2 - Max. Forward Current vs. Forward Voltage

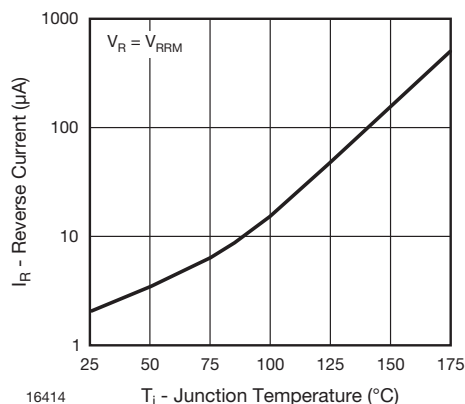


Fig. 4 - Max. Reverse Current vs. Junction Temperature

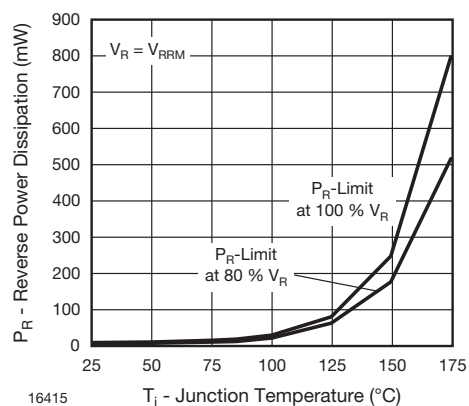


Fig. 5 - Max. Reverse Power Dissipation vs. Junction Temperature

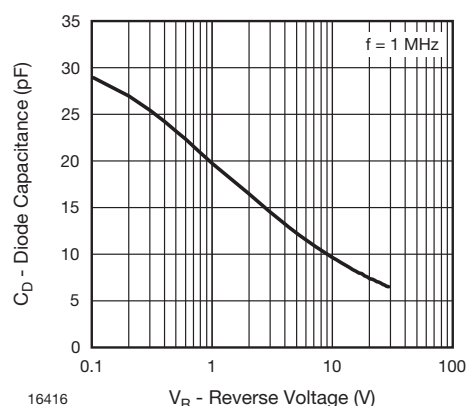
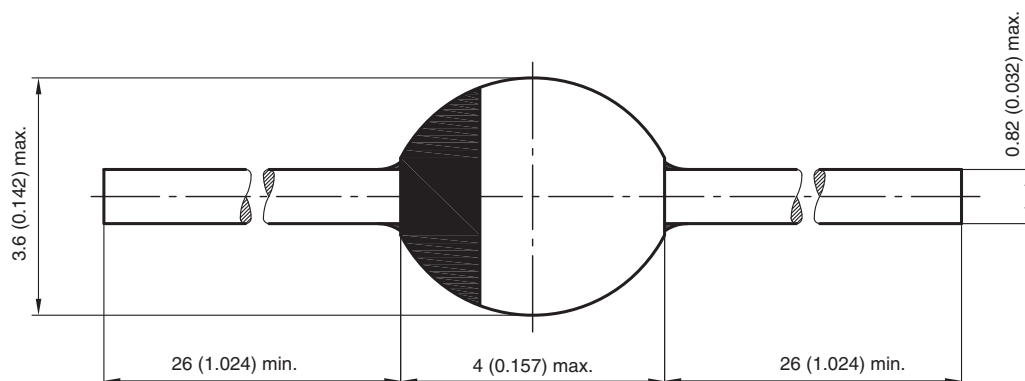


Fig. 6 - Diode Capacitance vs. Reverse Voltage

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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