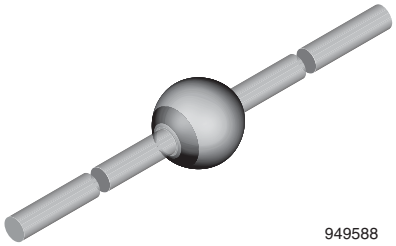
Standard Avalanche Sinterglass Diode



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 rectification
- Effficiency diode in horizontal deflection circuits

DESIGN SUPPORT TOOLS

click logo to get started

3D Models Available

MECHANICAL DATA

Case: SOD-64

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

Polarity: color band denotes cathode end

Mounting position: any

Weight: approx. 858 mg

ORDERING INFORMATION (Example)

DEVICE NAME	ORDERING CODE	TAPED UNITS	MINIMUM ORDER QUANTITY
BY228-15	BY228-15TR	2500 per 10" tape and reel	12 500
BY228-15	BY228-15TAP	2500 per ammopack	12 500

PARTS TABLE

PART	TYPE DIFFERENTIATION	PACKAGE
BY228-13	V_R = 1000 V; $I_{F(AV)}$ = 3 A	SOD-64
BY228-15	V_R = 1200 V; $I_{F(AV)}$ = 3 A	SOD-64

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Reverse voltage	See electrical characteristics	BY228-13	V_R	1000	V
		BY228-15	V_R	1200	V
Peak reverse voltage, non repetitive	I_R = 100 µA	BY228-13	V_{RSM}	1300	V
		BY228-15	V_{RSM}	1500	V
Peak forward surge current	t_p = 10 ms, half sine wave		I_{FSM}	50	A
Average forward current			$I_{F(AV)}$	3	A
Junction temperature			T_j	140	°C
Storage temperature range			T_{stg}	-55 to +175	°C
Non repetitive reverse avalanche energy	$I_{(BR)R}$ = 0.4 A		E_R	10	mJ

MAXIMUM THERMAL RESISTANCE (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Junction ambient	On PC board with spacing 25 mm	R_{thJA}	70	K/W

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ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)							
PARAMETER	**TEST CONDITION**	**PART**	**SYMBOL**	**MIN.**	**TYP.**	**MAX.**	**UNIT**
Forward voltage	I_F = 5 A		V_F	-	-	1.5	V
Reverse current	V_R = 1000 V	BY228-13	I_R	-	2	5	µA
	V_R = 1200 V	BY228-15	I_R	-	2	5	µA
	V_R = 1000 V, T_j = 140 °C	BY228-13	I_R	-	-	140	µA
	V_R = 1200 V, T_j = 140 °C	BY228-15	I_R	-	-	140	µA
Reverse recovery time	I_F = 0.5 A, I_R = 1 A, i_R = 0.25 A		t_{rr}	-	-	2	µs
Total reverse recovery time	I_F = 1 A, - dI_F/dt = 0.05 A/µs		t_{rr}	-	-	20	µs

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

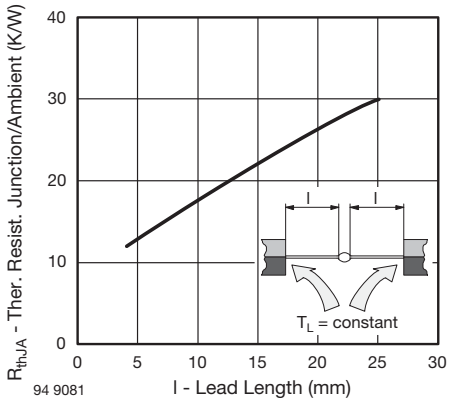

Fig. 1 - Typ. Thermal Resistance vs. Lead Length

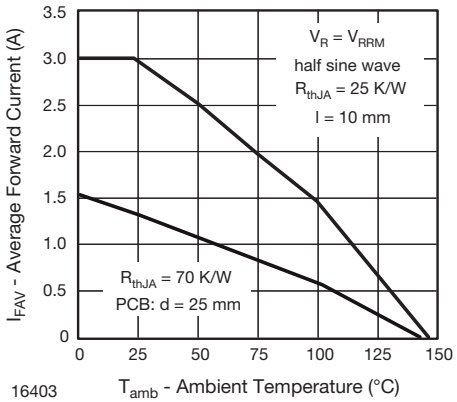

Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

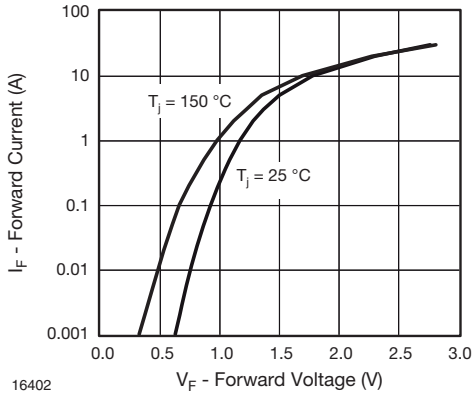

Fig. 2 - Forward Current vs. Forward Voltage

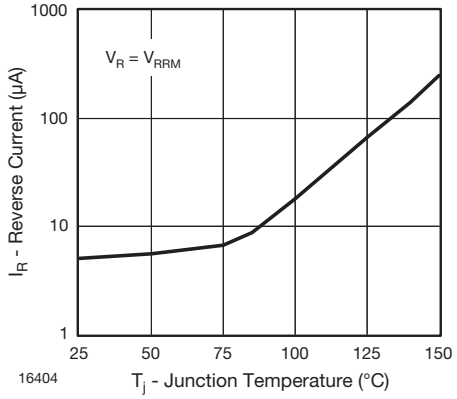

Fig. 4 - Reverse Current vs. Junction Temperature

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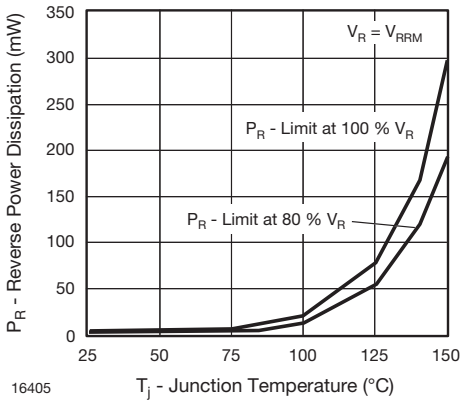


Fig. 5 - Diode Capacitance vs. Reverse Voltage

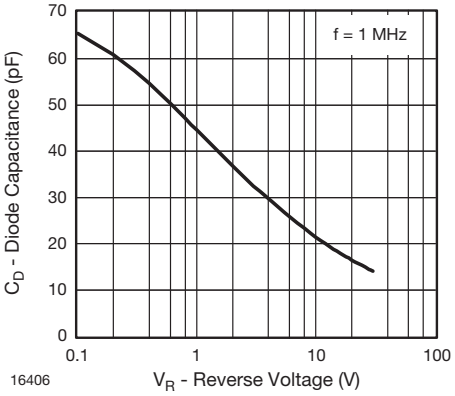
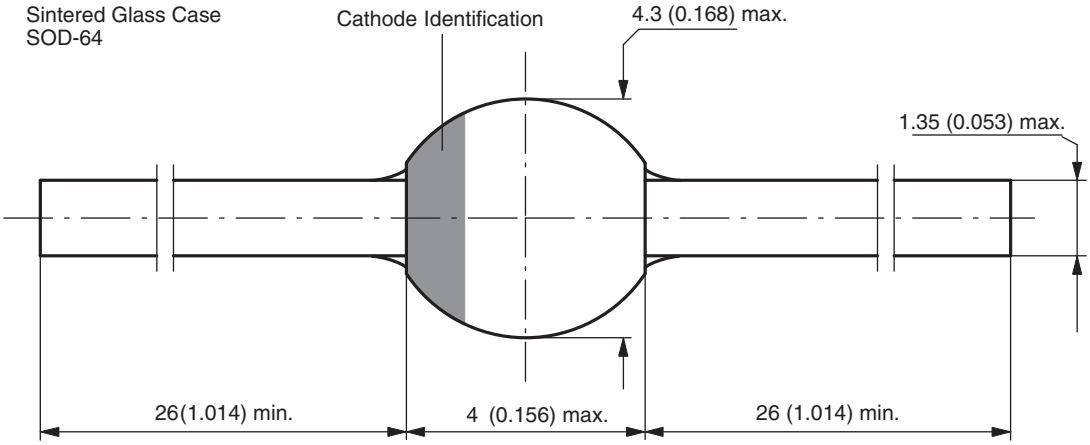


Fig. 6 - Diode Capacitance vs. Reverse Voltage

PACKAGE DIMENSIONS in millimeters (inches): **SOD-64**



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