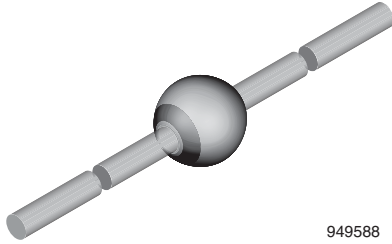


## Standard Avalanche Sinterglass Diode



949588

### 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 rectification
- Efficiency diode in horizontal deflection circuit

### 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	BY228TR	2500 per 10" tape and reel	12 500
BY228	BY228TAP	2500 per ammpack	12 500

### PARTS TABLE

PART	TYPE DIFFERENTIATION	PACKAGE
BY228	$V_R = 1500 \text{ V}$ ; $I_{F(AV)} = 3 \text{ A}$	SOD-64

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

PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Reverse voltage	See electrical characteristics	BY228	$V_R$	1500	V
Repetitive peak reverse voltage	$I_R = 100 \text{ } \mu\text{A}$		$V_{RRM}$	1650	V
Peak forward surge current	$t_p = 10 \text{ ms}$ , half sine wave		$I_{FSM}$	50	A
Average forward current			$I_{F(AV)}$	3	A
Junction temperature			$T_j$	140	$^\circ\text{C}$
Storage temperature range			$T_{stg}$	- 55 to + 175	$^\circ\text{C}$
Non repetitive reverse avalanche energy	$I_{(BR)R} = 0.4 \text{ A}$		$E_R$	10	mJ

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

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

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 5\text{ A}$	$V_F$	-	-	1.5	V
Reverse current	$V_R = 1500\text{ V}$	$I_R$	-	2	5	$\mu\text{A}$
	$V_R = 1500\text{ V}, T_j = 140\text{ }^{\circ}\text{C}$	$I_R$	-	-	140	$\mu\text{A}$
Total reverse recovery time	$I_F = 1\text{ A}, -di_F/dt = 0.05\text{ A}/\mu\text{s}$	$t_{rr}$	-	-	20	$\mu\text{s}$
Reverse recovery time	$I_F = 0.5\text{ A}, I_R = 1\text{ A}, i_{iR} = 0.25\text{ A}$	$t_{rr}$	-	-	2	$\mu\text{s}$

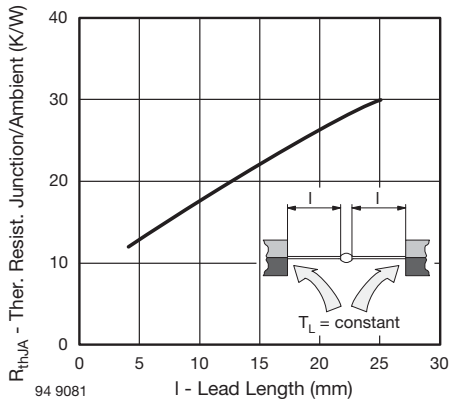
**TYPICAL CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)


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

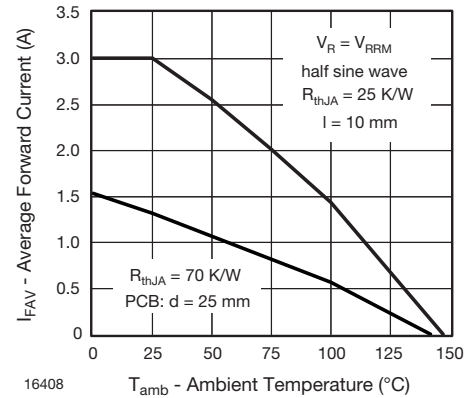


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

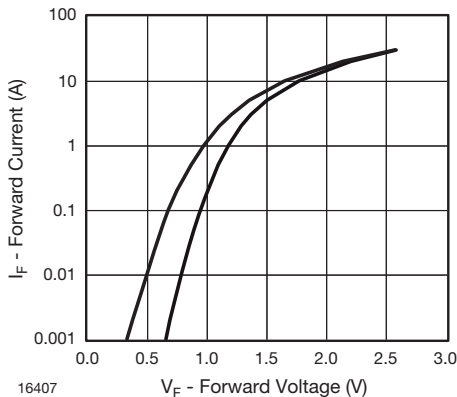


Fig. 2 - Forward Current vs. Forward Voltage

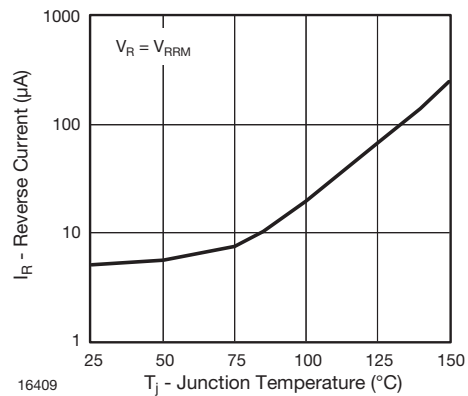


Fig. 4 - Reverse Current vs. Junction Temperature

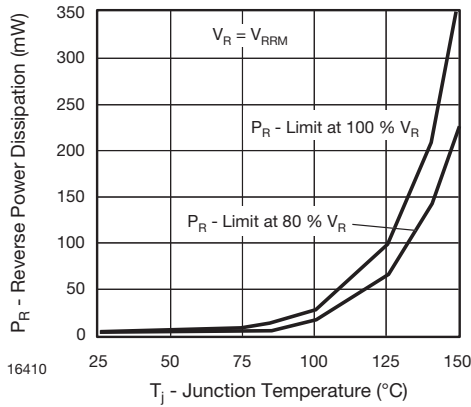


Fig. 5 - Max. Reverse Power Dissipation vs. Junction Temperature

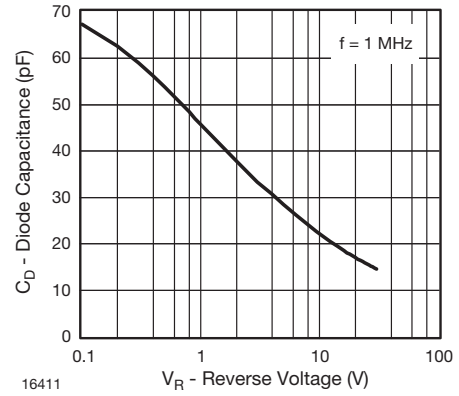
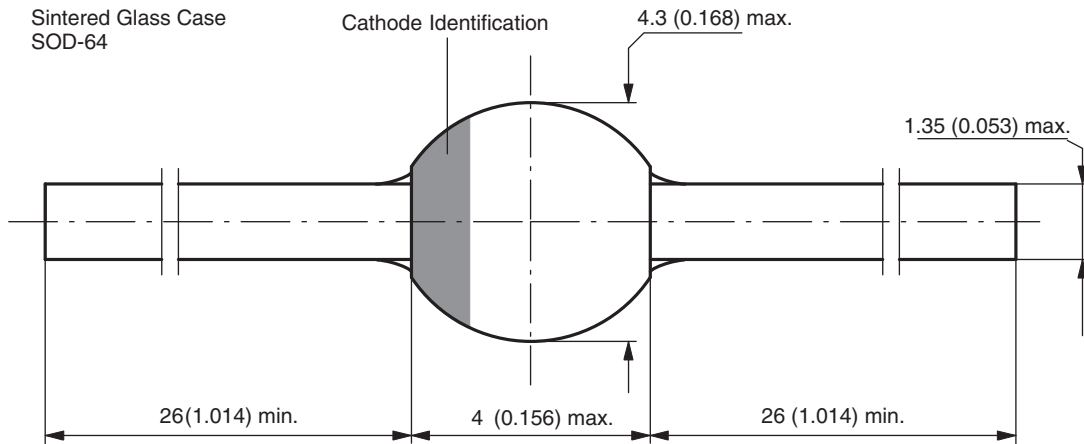


Fig. 6 - Diode Capacitance vs. Reverse Voltage

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



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 Rev. 3 - Date: 09.February.2005  
 94 9587



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