



# 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

### DESIGN SUPPORT TOOLS

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### 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 ammopack	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	$I_{(BR)} = 0.4\text{ A}$		$E_R$	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	$\mu\text{A}$
Reverse recovery time	$I_F = 0.5\text{ A}, I_R = 1\text{ A}, i_R = 0.25\text{ A}$	$t_{rr}$	-	-	2	$\mu\text{s}$
Total reverse recovery time	$I_F = 1\text{ A}, -di_F/dt = 0.05\text{ A}/\mu\text{s}$	$t_{rr}$	-	-	20	$\mu\text{s}$

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


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

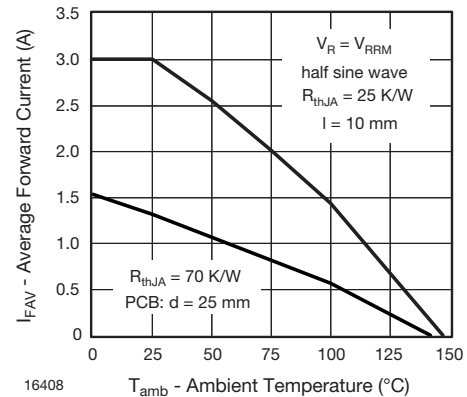


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

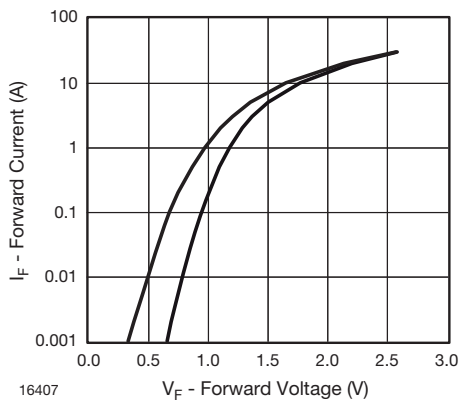


Fig. 2 - Forward Current vs. Forward Voltage

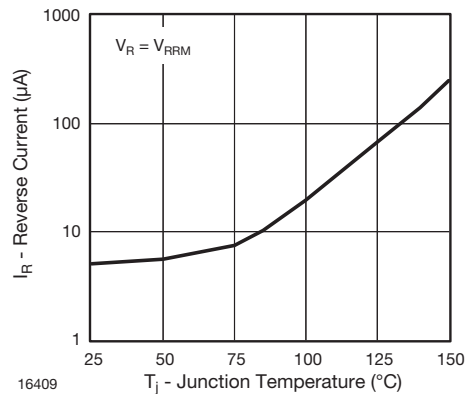


Fig. 4 - Reverse Current vs. Junction Temperature

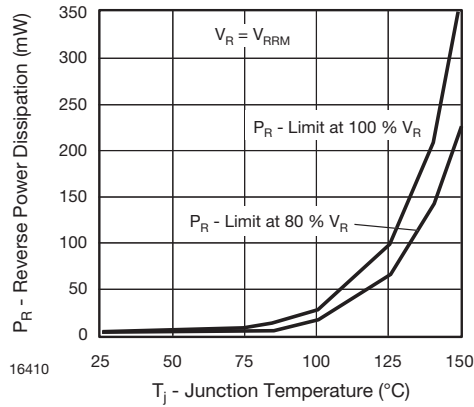


Fig. 5 - Max. Reverse Power Dissipation vs. Junction Temperature

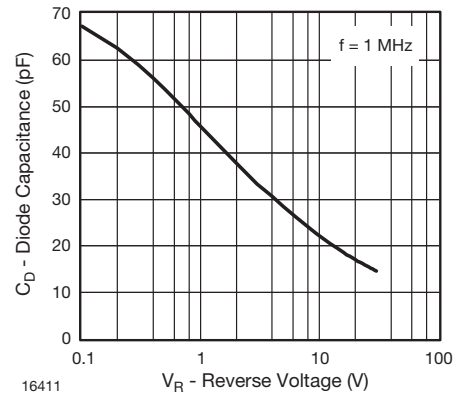
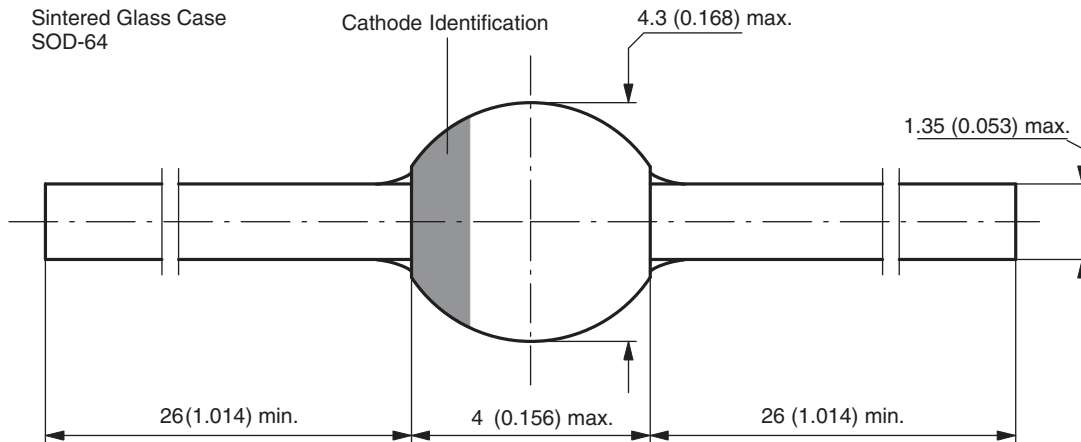


Fig. 6 - Diode Capacitance vs. Reverse Voltage

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



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