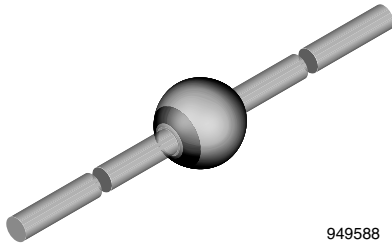




# Ultra-Fast Avalanche Sinterglass Diode



949588

### FEATURES

- High reverse voltage
- Glass passivated
- Low reverse current
- Low forward voltage drop
- Hermetically sealed axial-leaded glass envelope
- Material categorization:  
For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



RoHS COMPLIANT HALOGEN FREE

### 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

### APPLICATIONS

- Switched mode power supplies
- High-frequency inverter circuits

ORDERING INFORMATION (Example)			
DEVICE NAME	ORDERING CODE	TAPED UNITS	MINIMUM ORDER QUANTITY
BYV98-200	BYV98-200-TR	2500 per 10" tape and reel	12 500
BYV98-200	BYV98-200-TAP	2500 per ammpack	12 500

PARTS TABLE		
PART	TYPE DIFFERENTIATION	PACKAGE
BYV98-50	$V_R = 50\text{ V}; I_{F(AV)} = 4\text{ A}$	SOD-64
BYV98-100	$V_R = 100\text{ V}; I_{F(AV)} = 4\text{ A}$	SOD-64
BYV98-150	$V_R = 150\text{ V}; I_{F(AV)} = 4\text{ A}$	SOD-64
BYV98-200	$V_R = 200\text{ V}; I_{F(AV)} = 4\text{ A}$	SOD-64

ABSOLUTE MAXIMUM RATINGS ( $T_{amb} = 25\text{ }^\circ\text{C}$ , unless otherwise specified)					
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Reverse voltage = repetitive peak reverse voltage	See electrical characteristics	BYV98-50	$V_R = V_{RRM}$	50	V
		BYV98-100	$V_R = V_{RRM}$	100	V
		BYV98-150	$V_R = V_{RRM}$	150	V
		BYV98-200	$V_R = V_{RRM}$	200	V
Peak forward surge current	$t_p = 10\text{ ms}$ , half sine wave		$I_{FSM}$	70	A
Average forward current	$T_{amb} = 30\text{ }^\circ\text{C}$ , $I = 10\text{ mm}$		$I_{F(AV)}$	4	A
Junction and storage temperature range			$T_j = T_{stg}$	- 55 to + 175	$^\circ\text{C}$
Non repetitive reverse avalanche energy	$I_{(BR)R} = 1\text{ A}$		$E_R$	20	mJ

MAXIMUM THERMAL RESISTANCE ( $T_{amb} = 25\text{ }^\circ\text{C}$ , unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Junction ambient	Lead length $l = 10\text{ mm}$ , $T_L = \text{constant}$	$R_{thJA}$	25	K/W



ELECTRICAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	I <sub>F</sub> = 5 A		V <sub>F</sub>	-	-	1.1	V
Reverse current	V <sub>R</sub> = V <sub>RRM</sub>		I <sub>R</sub>	-	-	10	μA
	V <sub>R</sub> = V <sub>RRM</sub> , T <sub>J</sub> = 150 °C		I <sub>R</sub>	-	-	200	μA
Reverse breakdown voltage	I <sub>R</sub> = 100 μA	BYV98-50	V <sub>(BR)R</sub>	60	-	-	V
		BYV98-100	V <sub>(BR)R</sub>	120	-	-	V
		BYV98-150	V <sub>(BR)R</sub>	170	-	-	V
		BYV98-200	V <sub>(BR)R</sub>	220	-	-	V
Reverse recovery time	I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1 A, i <sub>R</sub> = 0.25 A		t <sub>rr</sub>	-	-	35	ns

**TYPICAL CHARACTERISTICS** (T<sub>amb</sub> = 25 °C, unless otherwise specified)

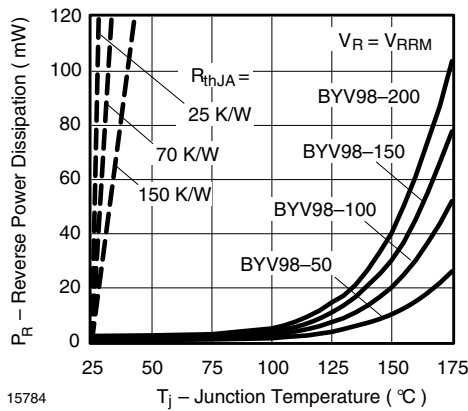


Fig. 1 - Max. Reverse Power Dissipation vs. Junction Temperature

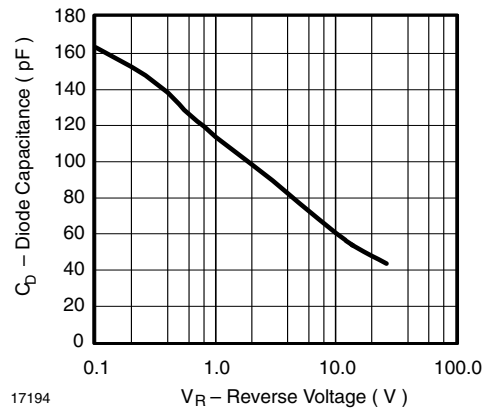


Fig. 3 - Diode Capacitance vs. Reverse Voltage

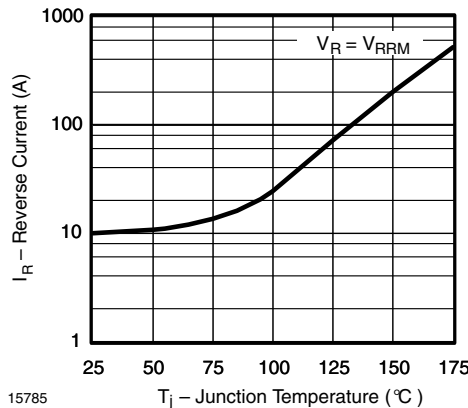


Fig. 2 - Max. Reverse Current vs. Junction Temperature

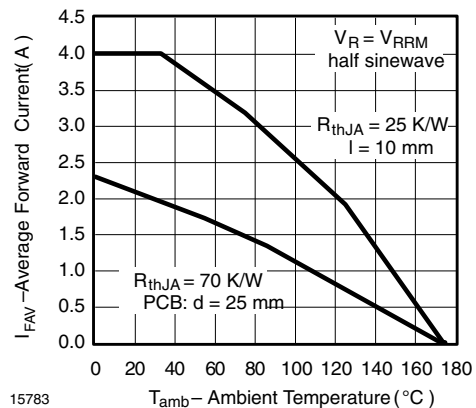


Fig. 4 - Max. Average Forward Current vs. Ambient Temperature

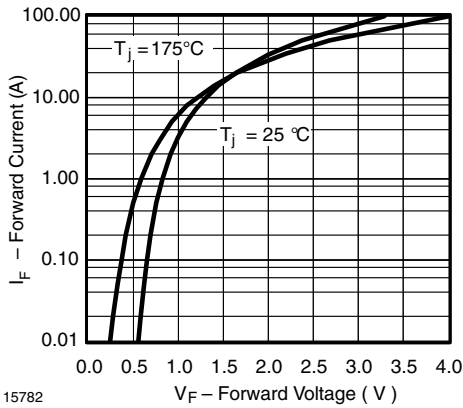
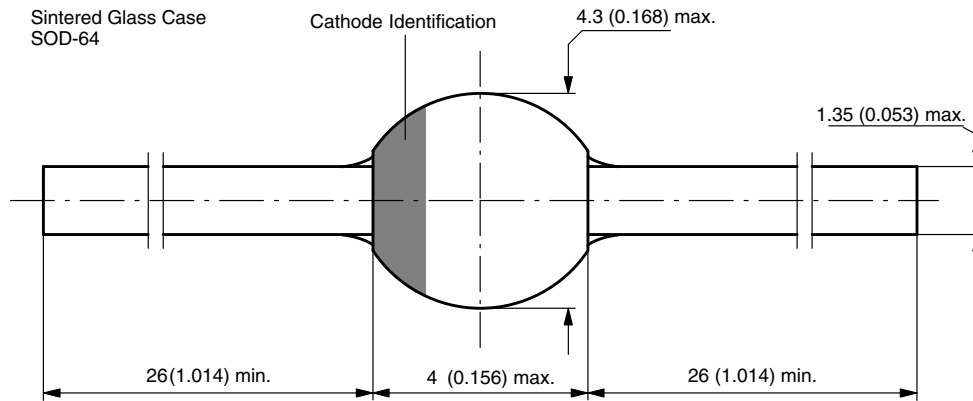


Fig. 5 - Max. Forward Current vs. Forward Voltage

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



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 94 9587



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