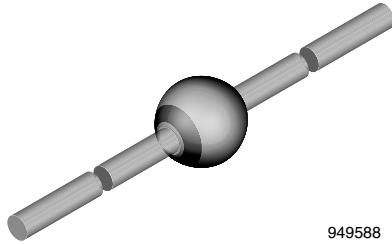


Ultra Fast Avalanche Sinterglass Diode



949588

FEATURES

- High reverse voltage
- Glass passivated
- Low reverse current
- Low forward voltage drop
- Hermetically sealed axial-leaded glass envelope
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



RoHS
COMPLIANT
HALOGEN
FREE

APPLICATIONS

- Switched mode power supplies
- High-frequency inverter circuits

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

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

BYV98-50, BYV98-100, BYV98-150, BYV98-200



Vishay Semiconductors Ultra Fast Avalanche Sinterglass Diode

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 5\text{ A}$		V_F	-	-	1.1	V
Reverse current	$V_R = V_{RRM}$		I_R	-	-	10	μA
	$V_R = V_{RRM}, T_j = 150\text{ }^{\circ}\text{C}$		I_R	-	-	200	μA
Reverse breakdown voltage	$I_R = 100\text{ }\mu\text{A}$	BYV98-50	$V_{(BR)R}$	60	-	-	V
		BYV98-100	$V_{(BR)R}$	120	-	-	V
		BYV98-150	$V_{(BR)R}$	170	-	-	V
		BYV98-200	$V_{(BR)R}$	220	-	-	V
Reverse recovery time	$I_F = 0.5\text{ A}, I_R = 1\text{ A}, i_R = 0.25\text{ A}$		t_{rr}	-	-	35	ns

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

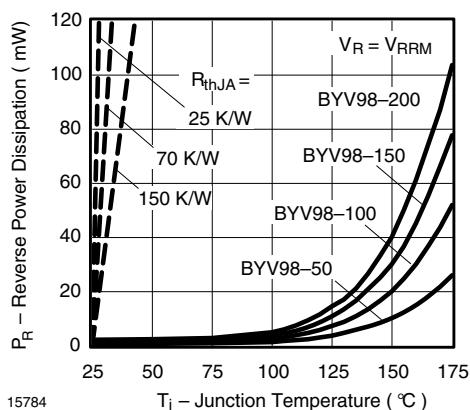


Fig. 1 - Max. Reverse Power Dissipation vs. Junction Temperature

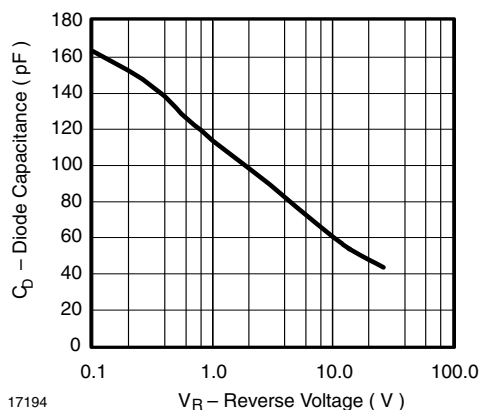


Fig. 3 - Diode Capacitance vs. Reverse Voltage

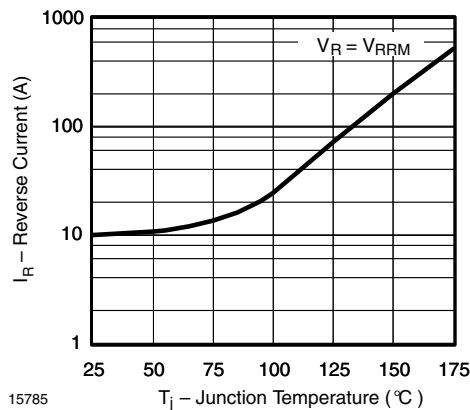


Fig. 2 - Max. Reverse Current vs. Junction Temperature

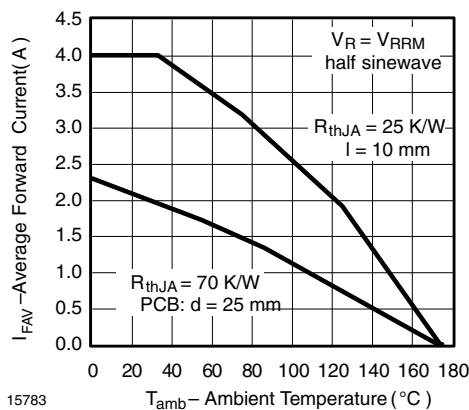


Fig. 4 - Max. Average Forward Current vs. Ambient Temperature



BYV98-50, BYV98-100, BYV98-150, BYV98-200

Ultra Fast Avalanche Sinterglass Diode Vishay Semiconductors

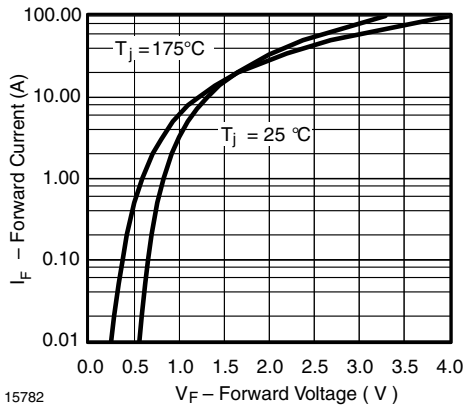
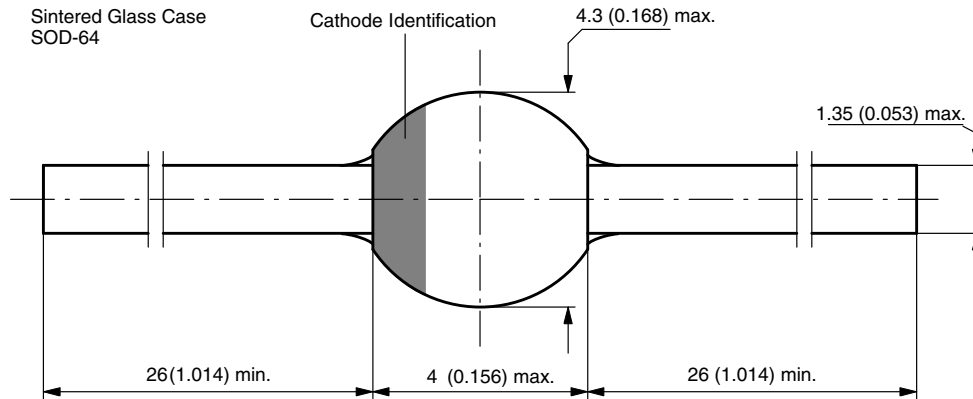


Fig. 5 - Max. Forward Current vs. Forward Voltage

PACKAGE DIMENSIONS in millimeters (inches): SOD-64



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