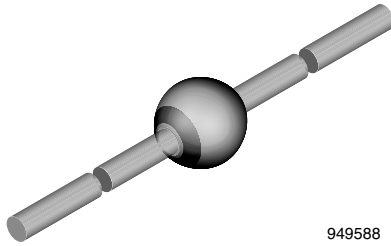


Fast Avalanche Sinterglass Diode



949588

FEATURES

- Glass passivated junction
- Hermetically sealed package
- Low reverse current
- Soft recovery characteristics
- Material categorization:
For definitions of compliance please see 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

- Fast rectification and switching diode for example for TV-line output circuits and switch mode power supply

ORDERING INFORMATION (Example)

DEVICE NAME	ORDERING CODE	TAPED UNITS	MINIMUM ORDER QUANTITY
BYW72 or BYW73	BYW73-TR	2500 per 10" tape and reel	12 500
BYW72 or BYW73	BYW73-TAP	2500 per ammpack	12 500
BYW74 or BYW75 or BYW76	BYW76TR	2500 per 10" tape and reel	12 500
BYW74 or BYW75 or BYW76	BYW76TAP	2500 per ammpack	12 500

PARTS TABLE

PART	TYPE DIFFERENTIATION	PACKAGE
BYW72	$V_R = 200\text{ V}; I_{F(AV)} = 3\text{ A}$	SOD-64
BYW73	$V_R = 300\text{ V}; I_{F(AV)} = 3\text{ A}$	SOD-64
BYW74	$V_R = 400\text{ V}; I_{F(AV)} = 3\text{ A}$	SOD-64
BYW75	$V_R = 500\text{ V}; I_{F(AV)} = 3\text{ A}$	SOD-64
BYW76	$V_R = 600\text{ V}; I_{F(AV)} = 3\text{ A}$	SOD-64

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

PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Reverse voltage = repetitive peak reverse voltage	See electrical characteristics	BYW72	$V_R = V_{RRM}$	200	V
		BYW73	$V_R = V_{RRM}$	300	V
		BYW74	$V_R = V_{RRM}$	400	V
		BYW75	$V_R = V_{RRM}$	500	V
		BYW76	$V_R = V_{RRM}$	600	V
Peak forward surge current	$t_p = 10\text{ ms}$, half sine wave		I_{FSM}	100	A
Repetitive peak forward current			I_{FRM}	15	A
Average forward current			$I_{F(AV)}$	3	A
Non repetitive reverse avalanche energy	$I_{(BR)R} = 0.4\text{ A}$		E_R	10	mJ
Junction and storage temperature range			$T_j = T_{stg}$	- 55 to + 175	$^\circ\text{C}$

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
	On PC board with spacing 25 mm	R_{thJA}	70	K/W

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 3\text{ A}$		V_F	-	0.95	1.1	V
Reverse current	$V_R = V_{RRM}$		I_R	-	1	5	μA
	$V_R = V_{RRM}$, $T_j = 150\text{ }^{\circ}\text{C}$		I_R	-	60	150	μA
Reverse recovery time	$I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $t_R = 0.25\text{ A}$		t_{rr}	-	-	200	ns

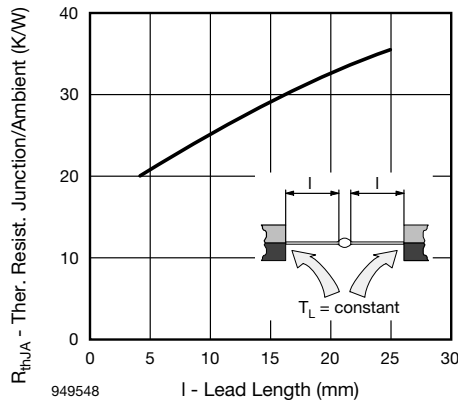
TYPICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)


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

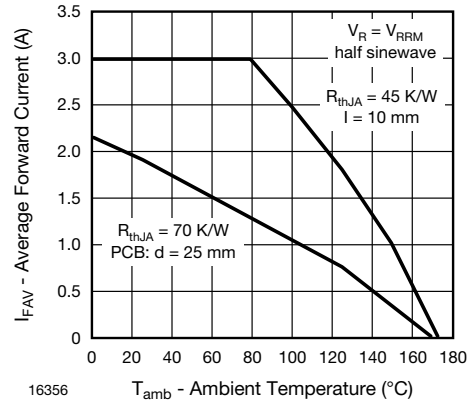


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

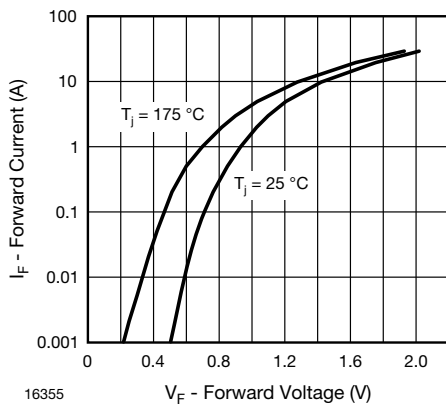


Fig. 2 - Max. Forward Current vs. Forward Voltage

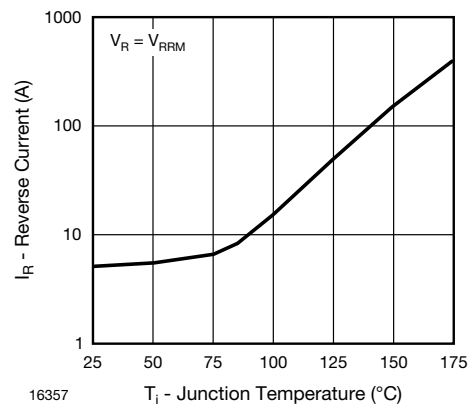


Fig. 4 - Max. Reverse Current vs. Junction Temperature

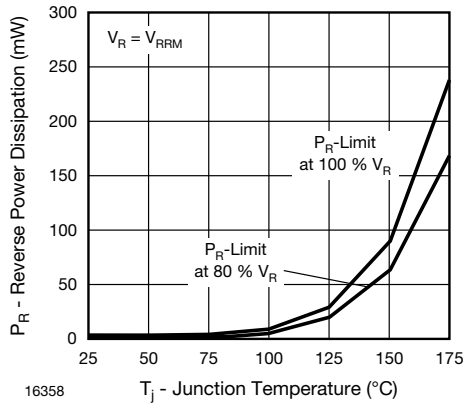


Fig. 5 - Max. Reverse Power Dissipation vs. Junction Temperature

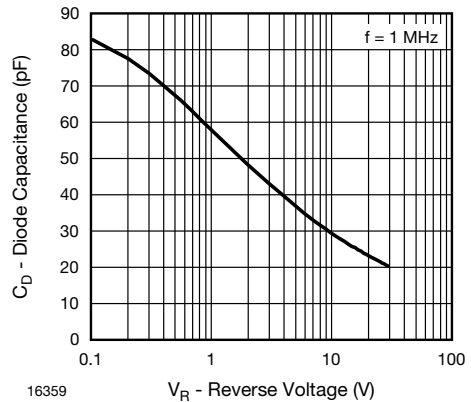


Fig. 6 - Diode Capacitance vs. Reverse Voltage

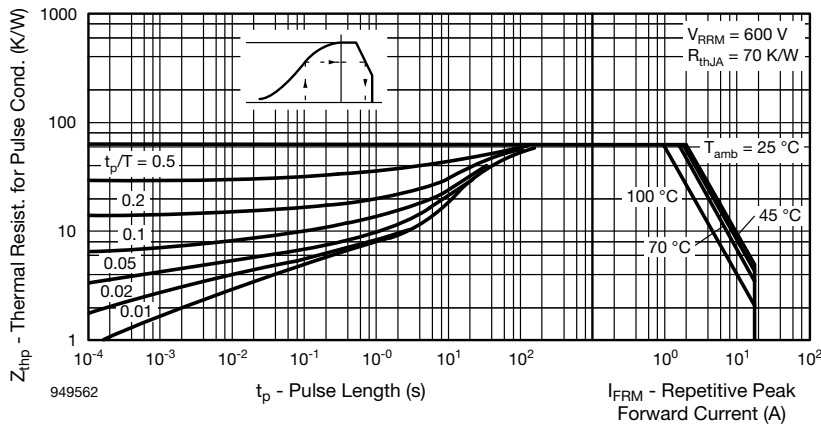
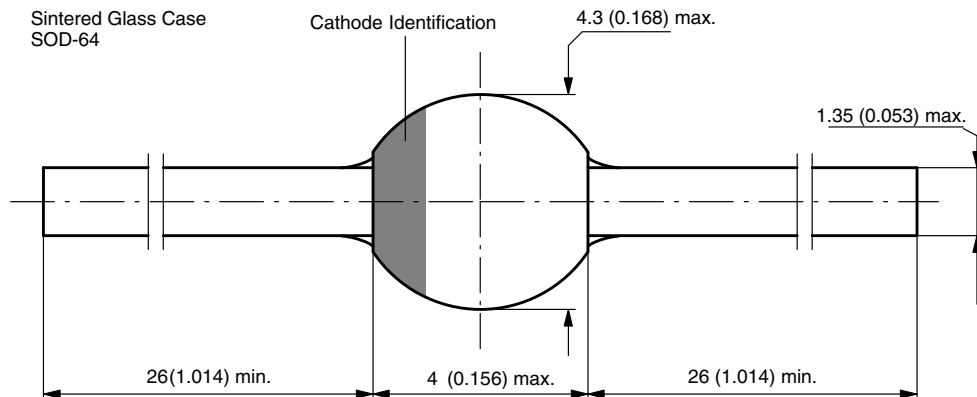


Fig. 7 - Thermal Response

PACKAGE DIMENSIONS in millimeters (inches): SOD-64



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