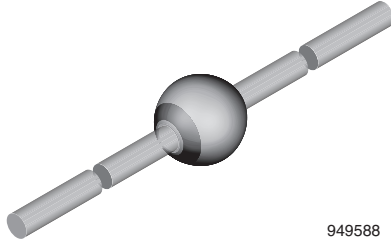


Ultra-Fast Avalanche Sinterglass Diode



949588

FEATURES

- Glass passivated
- Hermetically sealed axial-leaded glass envelope
- Low reverse current
- Ultra fast soft recovery switching
- 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

- TV
- SMPS
- Power feedback systems

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
BYV28-600	$V_R = 600\text{ V}$; $I_{FAV} = 3.5\text{ A}$	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	BYV28-600	$V_R = V_{RRM}$	600	V
Peak forward surge current	$t_p = 10\text{ ms}$, half sine wave		I_{FSM}	90	A
Average forward current	$I = 10\text{ mm}$		I_{FAV}	3.5	A
Non repetitive reverse avalanche energy	Inductive load, $I_{(BR)R} = 1\text{ A}$		E_R	20	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 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	I _F = 3.5 A	V _F	-	-	1.25	V
	I _F = 5 A	V _F	-	-	1.35	V
	I _F = 3.5 A, T _j = 175 °C	V _F	-	-	0.95	V
	I _F = 5 A, T _j = 175 °C	V _F	-	-	1.06	V
Reverse current	V _R = V _{RRM}	I _R	-	-	5	μA
	V _R = V _{RRM} , T _j = 150 °C	I _R	-	-	150	μA
Reverse breakdown voltage	I _R = 100 μA	V _{(BR)R}	600	-	-	V
Reverse recovery time	I _F = 0.5 A, I _R = 1 A, i _R = 0.25 A	t _{rr}	-	-	50	ns
Forward recovery	I _F = 5 A	V _{FP}	-	6.2	-	V
Forward recovery time	I _F = 5 A	t _{fr}	-	210	-	ns

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

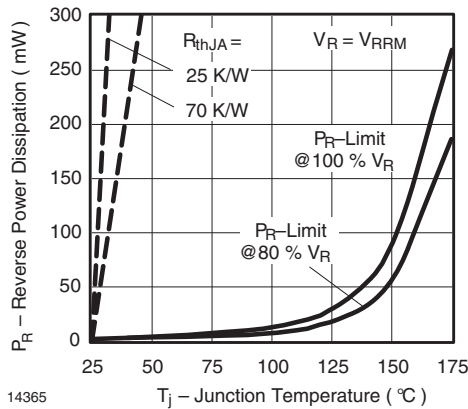


Fig. 1 - Max. Reverse Power Dissipation vs. Junction Temperature

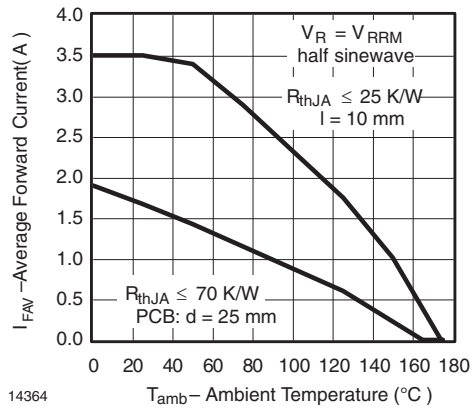


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

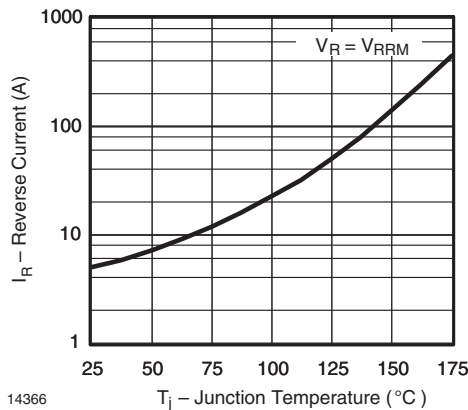


Fig. 2 - Max. Reverse Current vs. Junction Temperature

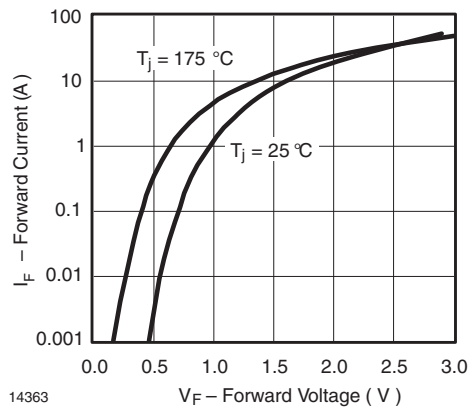


Fig. 4 - Max. Forward Current vs. Forward Voltage

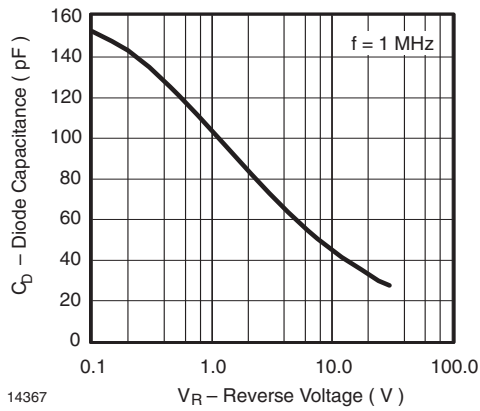
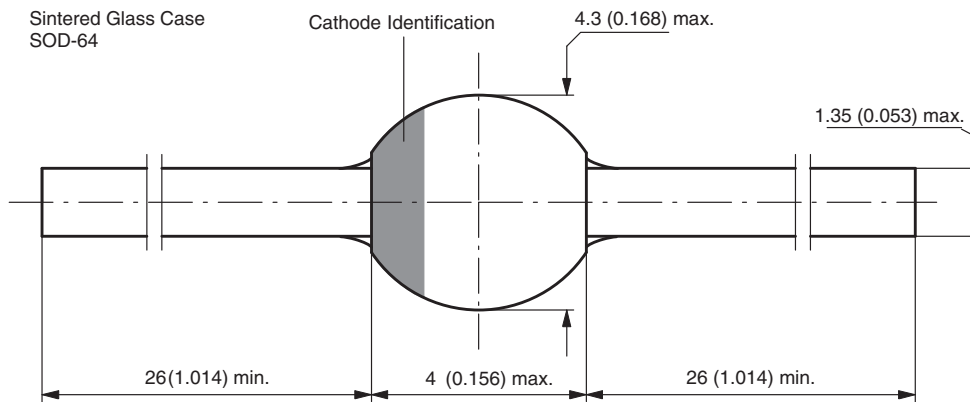


Fig. 5 - Typ. Diode Capacitance vs. Reverse Voltage

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


Document-No.: 6.563-5006.4-4
 Rev. 3 - Date: 09.February.2005
 94 9587



Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.