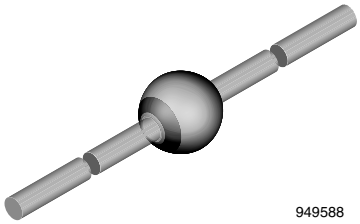
Standard Avalanche Sinterglass Diode



949588

FEATURES

- Glass passivated junction
- Hermetically sealed package
- Controlled avalanche characteristics
- Low reverse current
- High surge current loading
- 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

- Rectification diode, general purpose

ORDERING INFORMATION (Example)

DEVICE NAME	ORDERING CODE	TAPED UNITS	MINIMUM ORDER QUANTITY
1N5627	1N5627-TR	2500 per 10" tape and reel	12 500
1N5627	1N5627-TAP	2500 per ammopack	12 500

PARTS TABLE

PART	TYPE DIFFERENTIATION	PACKAGE
1N5624	V_R = 200 V; $I_{F(AV)}$ = 3 A	SOD-64
1N5625	V_R = 400 V; $I_{F(AV)}$ = 3 A	SOD-64
1N5626	V_R = 600 V; $I_{F(AV)}$ = 3 A	SOD-64
1N5627	V_R = 800 V; $I_{F(AV)}$ = 3 A	SOD-64

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT
Reverse voltage = repetitive peak reverse voltage	See electrical characteristics	1N5624	$V_R = V_{RRM}$	200	V
		1N5625	$V_R = V_{RRM}$	400	V
		1N5626	$V_R = V_{RRM}$	600	V
		1N5627	$V_R = V_{RRM}$	800	V
Peak forward surge current	t_p = 10 ms, half sinewave		I_{FSM}	100	A
Repetitive peak forward current			I_{FRM}	18	A
Average forward current			$I_{F(AV)}$	3	A
Pulse avalanche peak power	t_p = 20 µs, half sine wave, T_j = 175 °C		P_R	1000	W
Pulse energy in avalanche mode, non repetitive (inductive load switch off)	$I_{(BR)R}$ = 1 A, T_j = 175 °C		E_R	20	mJ
i^2*t-rating			i^2*t	40	A^2*s
Junction and storage temperature range			$T_j = T_{stg}$	- 55 to + 175	°C

MAXIMUM THERMAL RESISTANCE (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Junction ambient	l = 10 mm, T_L = 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**	**PART**	**SYMBOL**	**MIN.**	**TYP.**	**MAX.**	**UNIT**
Forward voltage	I_F = 3 A		V_F	-	-	1	V
Reverse current	$V_R = V_{RRM}$		I_R	-	0.1	1	µA
	$V_R = V_{RRM}$, T_j = 100 °C		I_R	-	5	10	µA
Breakdown voltage	I_R = 100 µA, t_p/T = 0.01, t_p = 0.3 ms		$V_{(BR)}$	-	-	1600	V
Diode capacitance	V_R = 4 V, f = 1 MHz		C_D	-	40	60	pF
Reverse recovery time	I_F = 0.5 A, I_R = 1 A, i_R = 0.25 A		t_{rr}	-	3.5	5	µs
	I_F = 1 A, dI/d_t = 5 A/µs, V_R = 50 V		t_{rr}	-	4.5	7.5	µs
Reverse recovery charge	I_F = 1 A, dI/d_t = 5 A/µs		Q_{rr}	-	8	12	µC

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

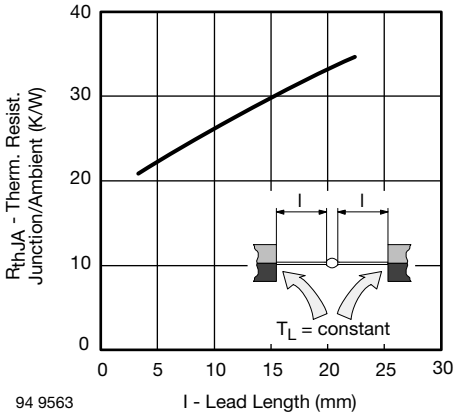


Fig. 1 - Max. Thermal Resistance vs. Lead Length

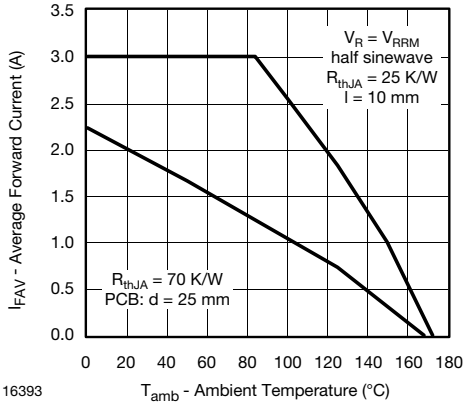


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

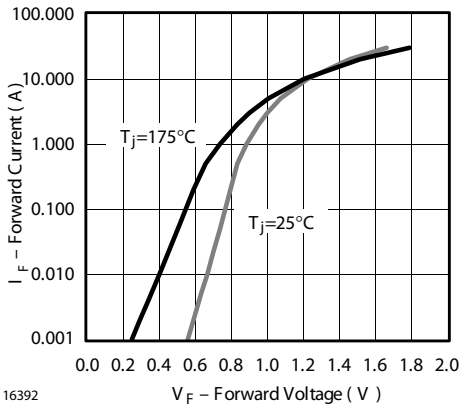


Fig. 2 - Forward Current vs. Forward Voltage

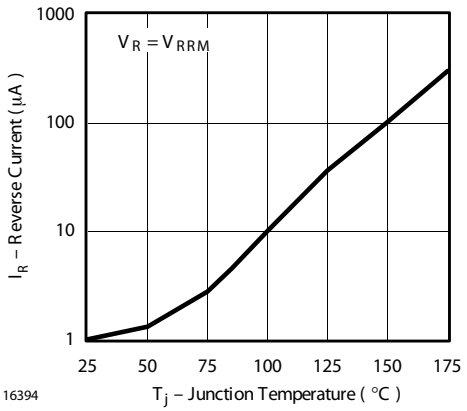


Fig. 4 - Reverse Current vs. Junction Temperature

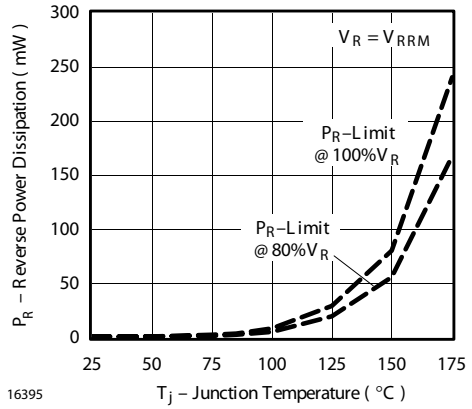


Fig. 5 - Max. Reverse Power Dissipation vs. Junction Temperature

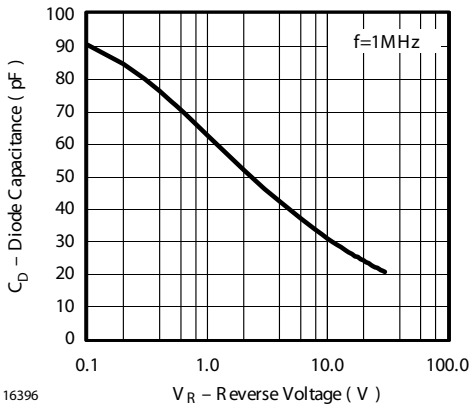
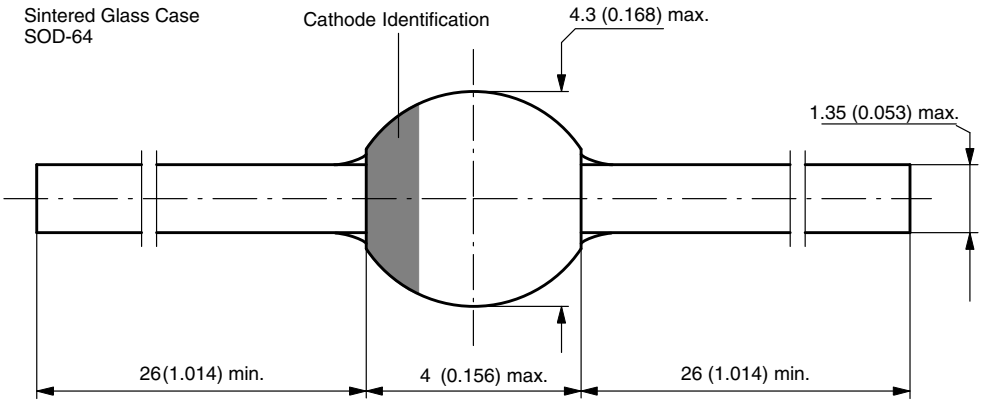


Fig. 6 - Diode Capacitance vs. Reverse Voltage

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



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

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

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 in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay’s knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer’s responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer’s technical experts. Product specifications do not expand or otherwise modify Vishay’s terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

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

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Rectifiers ***category:***

Click to view products by Vishay ***manufacturer:***

Other Similar products are found below :

70HFR40 RL252-TP 150KR30A 1N5397 NTE5841 NTE6038 SCF5000 1N4002G 1N4005-TR JANS1N6640US 481235F RRE02VS6SGTR 067907F MS306 70HF40 T110HF60 T85HFL60S02 US2JFL-TP A1N5404G-G CRS04(T5L,TEMQ) ACGRA4007-HF ACGRB207-HF CLH03(TE16L,Q) ACGRC307-HF ACEFC304-HF NTE6356 NTE6359 NTE6002 NTE6023 NTE6039 NTE6077 85HFR60 40HFR60 1N1186RA 70HF120 85HFR80 D126A45C SCF7500 D251N08B SCHJ22.5K SM100 SCPA2 SCH10000 SDHD5K VS-12FL100S10 ACGRA4001-HF D1821SH45T PR D1251S45T NTE5990 NTE6358