Vishay Semiconductors

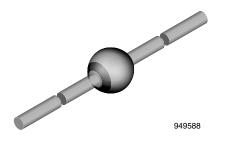


RoHS

COMPLIANT HALOGEN

FREE

Standard Avalanche Sinterglass Diode



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

FEATURES

- Glass passivated junction
- Hermetically sealed package
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition

APPLICATIONS

- High voltage rectification
- Effficiency diode in horizontal deflection circuits

PARTS TABLE				
PART	TYPE DIFFERENTIATION	PACKAGE		
BY228-13	V _R = 1000 V; I _{FAV} = 3 A	SOD-64		
BY228-15	V _B = 1200 V; I _{EAV} = 3 A	SOD-64		

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT	
Peak reverse voltage, non repetitive	I _R = 100 μA	BY228-13	V _{RSM}	1300	V	
		BY228-15	V _{RSM}	1500	V	
Poverso veltago	See electrical characteristics	BY228-13	V _R	1000	V	
Reverse voltage		BY228-15	V _R	1200	V	
Peak forward surge current	$t_p = 10$ ms, half sine wave		I _{FSM}	50	А	
Average forward current			I _{FAV}	3	А	
Junction temperature			Тj	140	°C	
Storage temperature range			T _{stg}	- 55 to + 175	°C	
Non repetitive reverse avalanche energy	I _{(BR)R} = 0.4 A		E _R	10	mJ	

MAXIMUM THERMAL RESISTANCE (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Junction ambient	On PC board with spacing 25 mm	R _{thJA}	70	K/W	



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ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX	UNIT
Forward voltage	I _F = 5 A		V _F	-	-	1.5	V
Reverse current	V _R = 1000 V	BY228-13	I _R	-	2	5	μA
	V _R = 1200 V	BY228-15	I _R	-	2	5	μA
	V _R = 1000 V, T _j = 140 °C	BY228-13	I _R	-	-	140	μA
	V _R = 1200 V, T _j = 140 °C	BY228-15	I _R	-	-	140	μA
Total reverse recovery time	I _F = 1 A, - dI _F /dt = 0.05 A/μs		t _{rr}	-	-	20	μs
Reverse recovery time	I _F = 0.5 A, I _R = 1 A, i _R = 0.25 A		t _{rr}	-	-	2	μs

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

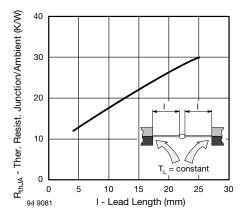


Fig. 1 - Typ. Thermal Resistance vs. Lead Length

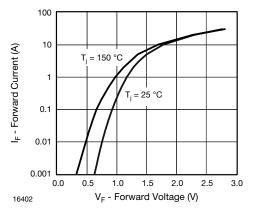


Fig. 2 - Forward Current vs. Forward Voltage

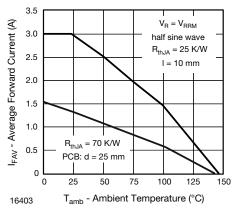


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

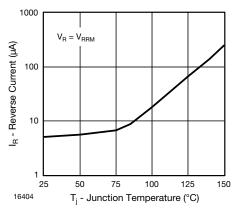


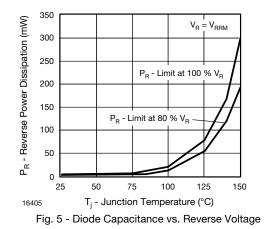
Fig. 4 - Reverse Current vs. Junction Temperature

BY228-13, BY228-15

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Standard Avalanche Sinterglass Diode





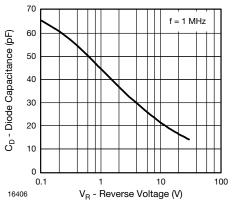
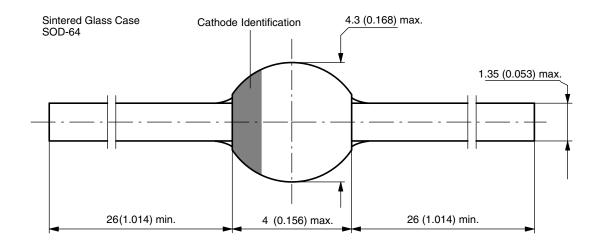


Fig. 6 - Diode Capacitance vs. Reverse Voltage

PACKAGE DIMENSIONS in millimeters (inches): SOD-64



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