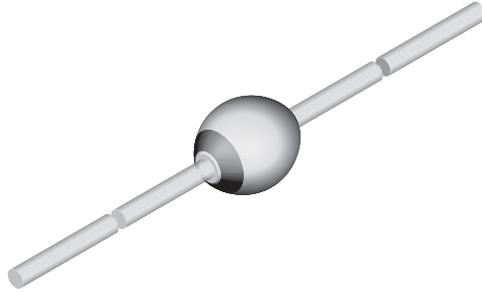


## Standard Avalanche Sinterglass Diode



949539

### DESIGN SUPPORT TOOLS

[click logo to get started](#)
**3D**  
Models  
Available

### MECHANICAL DATA

**Case:** SOD-57

**Terminals:** plated axial leads, solderable per MIL-STD-750, method 2026

**Polarity:** color band denotes cathode end

**Mounting position:** any

**Weight:** approx. 369 mg

### FEATURES

- Glass passivated junction
- Hermetically sealed package
- Controlled avalanche characteristics
- Low reverse current
- Material categorization:  
for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

### APPLICATIONS

- High voltage rectification diode

### ORDERING INFORMATION (Example)

DEVICE NAME	ORDERING CODE	TAPED UNITS	MINIMUM ORDER QUANTITY
BYT62	BYT62-TR	5000 per 10" tape and reel	25 000
BYT62	BYT62-TAP	5000 per ammpack	25 000

### PARTS TABLE

PART	TYPE DIFFERENTIATION	PACKAGE
BYT62	$V_R = 2400\text{ V}$ ; $I_{F(AV)} = 350\text{ mA}$	SOD-57

### 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	BYT62	$V_R = V_{RRM}$	2400	V
Peak forward surge current	$t_p = 10\text{ ms}$ , half sine wave		$I_{FSM}$	10	A
Average forward current	$R_{thJA} \leq 60\text{ K/W}$		$I_{F(AV)}$	0.350	A
Non repetitive reverse avalanche energy	$I_{(BR)R} = 1\text{ A}$ , inductive load		$E_R$	60	mJ
Junction temperature			$T_j$	175	$^\circ\text{C}$
Storage temperature range			$T_{stg}$	-55 to +190	$^\circ\text{C}$

### MAXIMUM THERMAL RESISTANCE ( $T_{amb} = 25\text{ }^\circ\text{C}$ , unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Junction ambient	Lead length $l = 10\text{ mm}$ , $T_L = \text{constant}$	$R_{thJA}$	60	K/W

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX	UNIT
Forward voltage	$I_F = 0.2\text{ A}$	$V_F$	-	-	3	V
	$I_F = 1\text{ A}$	$V_F$	-	-	3.6	V
	$I_F = 1\text{ A}, T_j = 175\text{ }^{\circ}\text{C}$	$V_F$	-	-	2.9	V
	$I_F = 1\text{ A}, T_j = -40\text{ }^{\circ}\text{C}$	$V_F$	-	-	4	V
Reverse current	$V_R = V_{RRM}$	$I_R$	-	-	5	$\mu\text{A}$
	$V_R = V_{RRM}, T_j = 175\text{ }^{\circ}\text{C}$	$I_R$	-	-	250	$\mu\text{A}$
	$V_R = V_{RRM}, T_j = -40\text{ }^{\circ}\text{C}$	$I_R$	-	-	400	nA
Reverse breakdown voltage	$I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	2500	-	-	V
Reverse recovery time	$I_F = 0.5\text{ A}, I_R = 1\text{ A}, i_R = 0.25\text{ A}$	$t_{rr}$	-	-	5000	ns

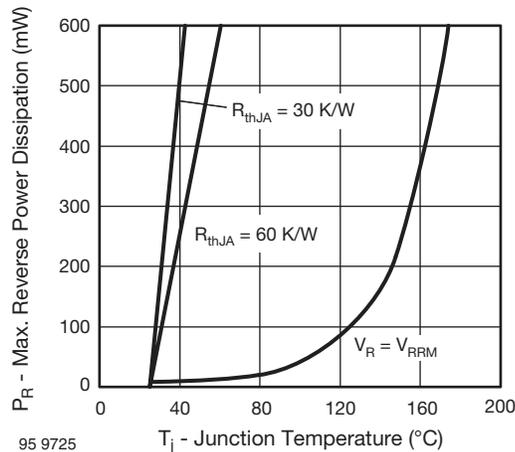
**TYPICAL CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)


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

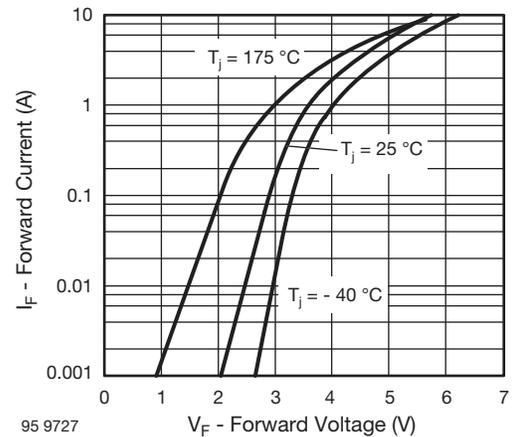


Fig. 3 - Max. Forward Current vs. Forward Voltage

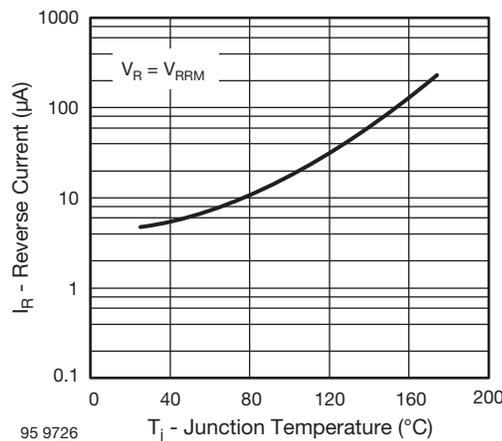
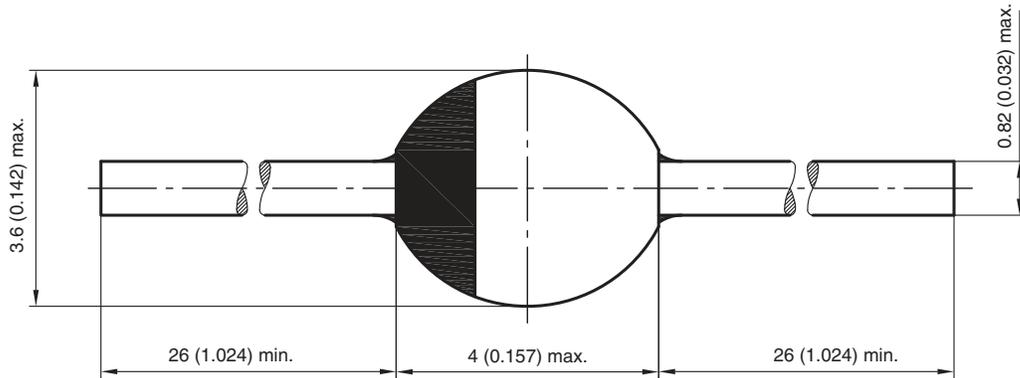


Fig. 2 - Max. Reverse Current vs. Junction Temperature



**PACKAGE DIMENSIONS** in millimeters (inches): **SOD-57**

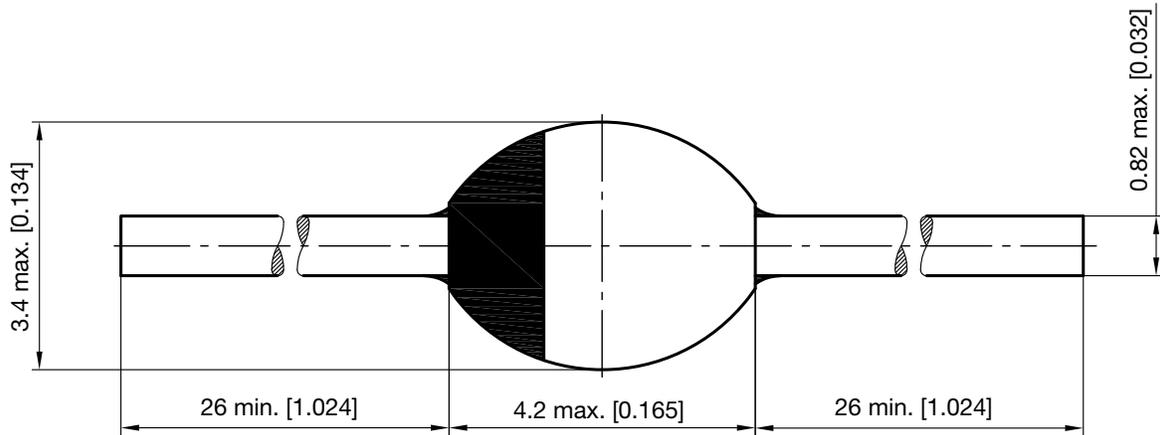


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## SOD-57 BYT62-BY203

**PACKAGE DIMENSIONS** in millimeters (inches)



23194

Rev. 3 - Date: 09.February.2005  
Document no.:6.563-5006.5-4



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