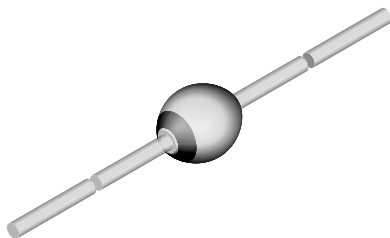


# Standard Avalanche Sinterglass Diode



949539

## 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**

## 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

## 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                            | SYMBOL          | VALUE         | UNIT               |
|---------------------------------------------------|-------------------------------------------|-----------------|---------------|--------------------|
| Reverse voltage = repetitive peak reverse voltage | See electrical characteristics            | $V_R = V_{RRM}$ | 2400          | V                  |
| Peak forward surge current                        | $t_p = 10\text{ ms}$ , half sine wave     | $I_{FSM}$       | 10            | A                  |
| Average forward current                           | $R_{thJA} \leq 60\text{ K/W}$             | $I_{F(AV)}$     | 350           | mA                 |
| 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                                                                                          | $I_F = 200\text{ mA}$                                       | $V_F$       | -    | -    | 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                                                                                    | $I_F = 0.5\text{ A}, I_R = 1\text{ A}, i_R = 0.25\text{ A}$ | $t_{rr}$    | -    | -    | 5   | $\mu\text{s}$ |

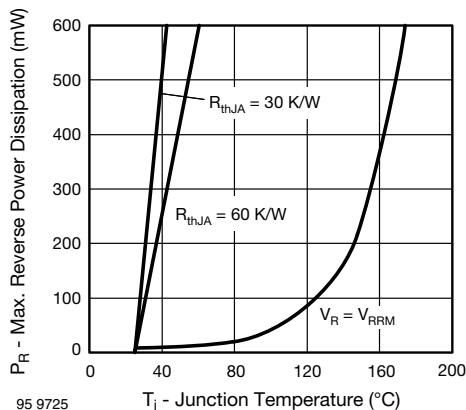
**TYPICAL CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)


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

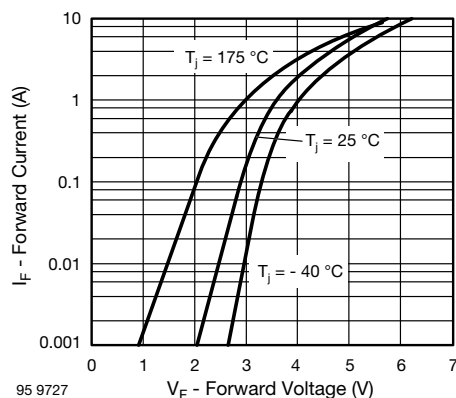


Fig. 3 - Max. Forward Current vs. Forward Voltage

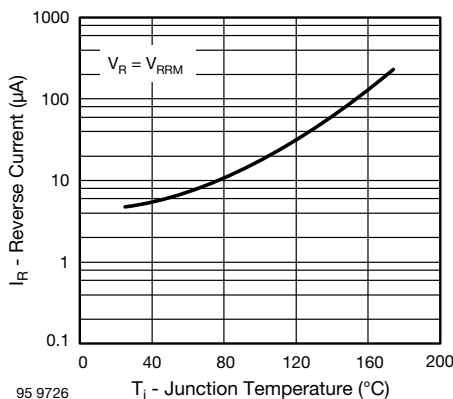
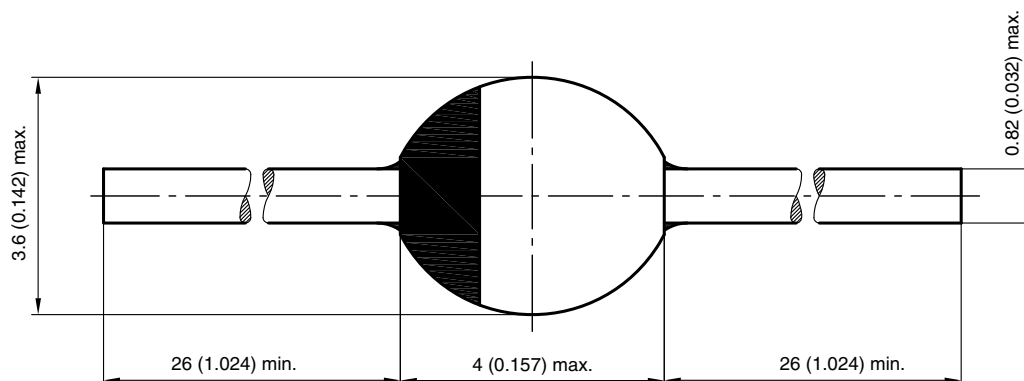


Fig. 2 - Max. Reverse Current vs. Junction Temperature



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



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