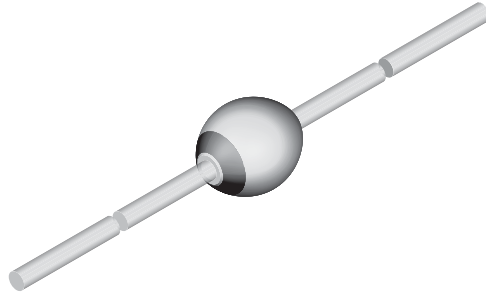


Standard Avalanche Sinterglass Diode



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


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 |

| ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, 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 | μA |
| | $V_R = V_{RRM}, T_j = 175\text{ }^{\circ}\text{C}$ | I_R | - | - | 250 | μA |
| | $V_R = V_{RRM}, T_j = -40\text{ }^{\circ}\text{C}$ | 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 |

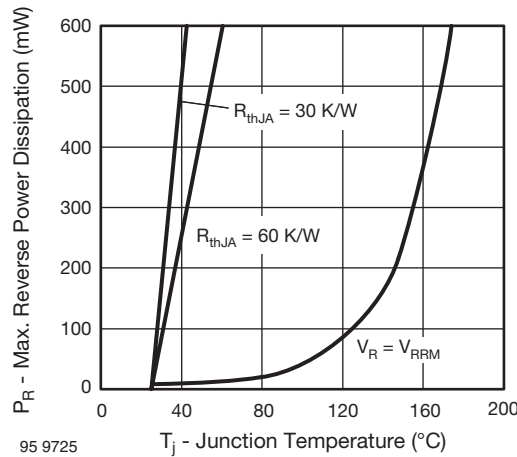
TYPICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)


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

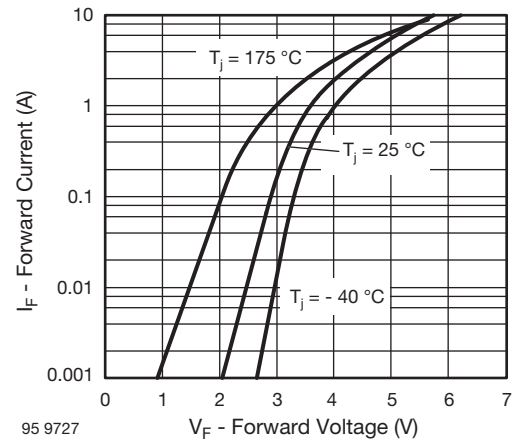


Fig. 3 - Max. Forward Current vs. Forward Voltage

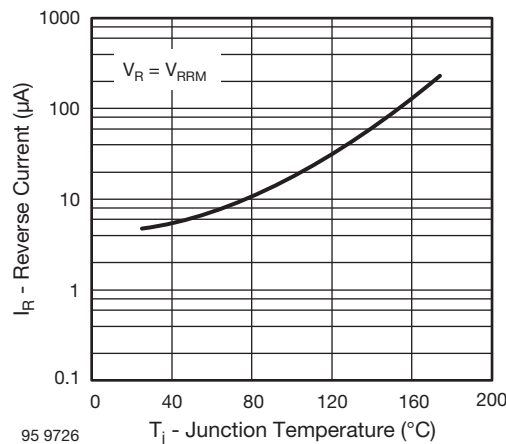
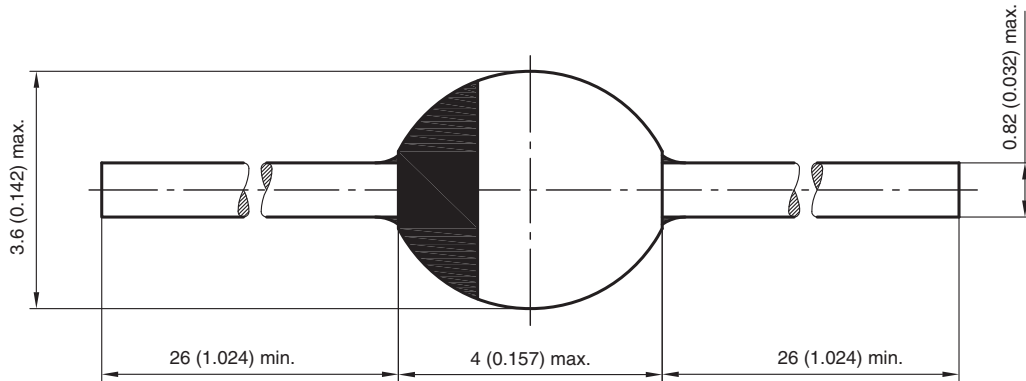


Fig. 2 - Max. Reverse Current vs. Junction Temperature



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

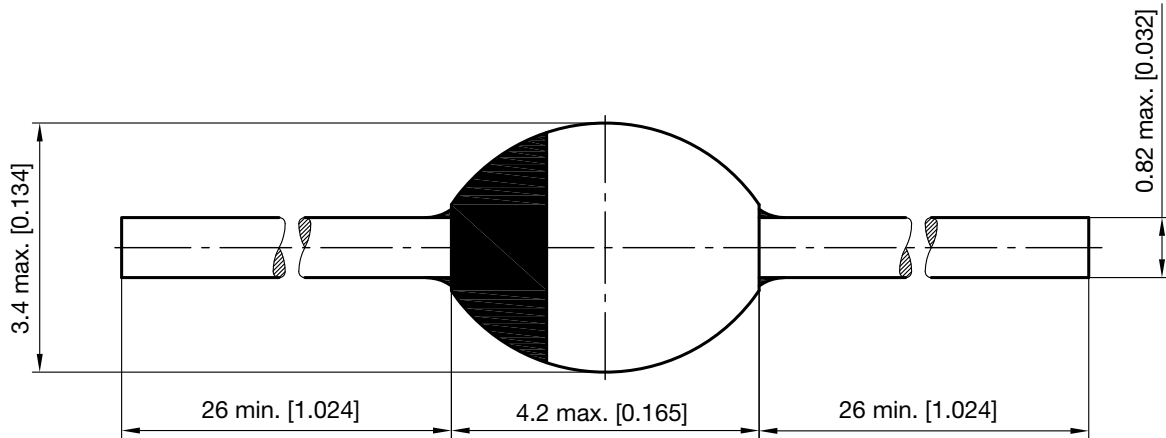


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SOD-57 BYT62-BY203

PACKAGE DIMENSIONS in millimeters (inches)



23194

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Document no.:6.563-5006.5-4



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