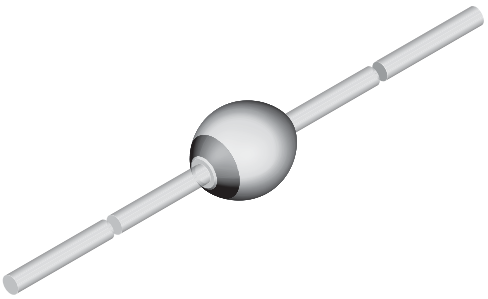
# Fast Avalanche Sinterglass Diode



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## FEATURES

- Glass passivated junction
- Hermetically sealed package
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb e2 RoHS COMPLIANT HALOGEN FREE

## APPLICATIONS

- High voltage fast rectification diode

## 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

| **ORDERING INFORMATION** (Example) | | | |
|---|---|---|---|
| **DEVICE NAME** | **ORDERING CODE** | **TAPED UNITS** | **MINIMUM ORDER QUANTITY** |
| BY269 | BY269TR | 5000 per 10" tape and reel | 25 000 |
| BY269 | BY269TAP | 5000 per ammopack | 25 000 |

| **PARTS TABLE** | | |
|---|---|---|
| **PART** | **TYPE DIFFERENTIATION** | **PACKAGE** |
| BY268 | $V_R$ = 1400 V; $I_{F(AV)}$ = 0.8 A | SOD-57 |
| BY269 | $V_R$ = 1600 V; $I_{F(AV)}$ = 0.8 A | SOD-57 |

| **ABSOLUTE MAXIMUM RATINGS** ($T_{amb}$ = 25 °C, unless otherwise specified) | | | | | |
|---|---|---|---|---|---|
| **PARAMETER** | **TEST CONDITION** | **PART** | **SYMBOL** | **VALUE** | **UNIT** |
| Reverse voltage | See electrical characteristics | BY268 | $V_R$ | 1400 | V |
| | | BY269 | $V_R$ | 1600 | V |
| Peak reverse voltage, non repetitive | | BY268 | $V_{RSM}$ | 1600 | V |
| | | BY269 | $V_{RSM}$ | 1800 | V |
| Peak forward surge current | $t_p$ = 10 ms, half sine wave | | $I_{FSM}$ | 20 | A |
| Average forward current | | | $I_{F(AV)}$ | 0.8 | A |
| Non repetitive reverse avalanche energy | $I_{(BR)R}$ = 0.4 A | | $E_R$ | 10 | mJ |
| 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 | Lead length l = 10 mm, $T_L$ = constant | $R_{thJA}$ | 45 | K/W |
| | On PC board with spacing 25 mm | $R_{thJA}$ | 100 | K/W |

| ELECTRICAL CHARACTERISTICS ($T_{amb}$ = 25 °C, unless otherwise specified) | | | | | | | |
|---|---|---|---|---|---|---|---|
| PARAMETER | TEST CONDITION | PART | SYMBOL | MIN. | TYP. | MAX. | UNIT |
| Forward voltage | $I_F$ = 0.4 A | | $V_F$ | - | - | 1.25 | V |
| Reverse current | $V_R$ = 1400 V | BY268 | $I_R$ | - | 1 | 2 | µA |
| | $V_R$ = 1600 V | BY269 | $I_R$ | - | 1 | 2 | µA |
| | $V_R$= 1400 V, $T_j$ = 100 °C | BY268 | $I_R$ | - | - | 15 | µA |
| | $V_R$= 1600 V, $T_j$ = 100 °C | BY269 | $I_R$ | - | - | 15 | µA |
| Reverse recovery time | $I_F$ = 0.5 A, $I_R$ = 1 A, $i_R$ = 0.25 A | | $t_{rr}$ | - | - | 400 | ns |

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

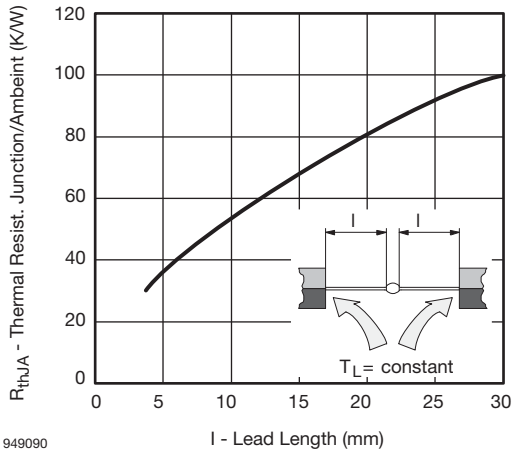



Fig. 1 - Max. Thermal Resistance vs. Lead Length

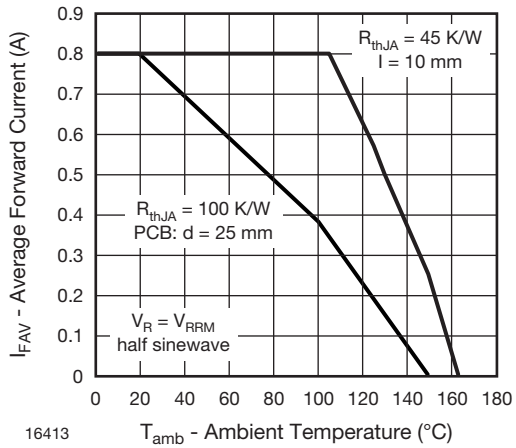



Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

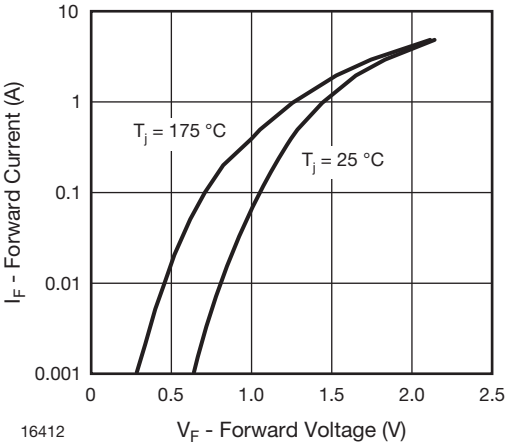



Fig. 2 - Max. Forward Current vs. Forward Voltage

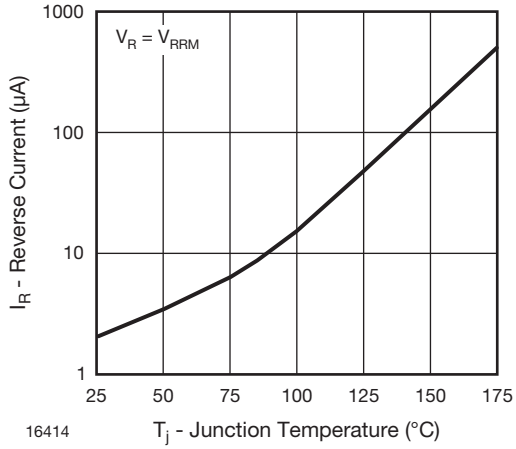



Fig. 4 - Max. Reverse Current vs. Junction Temperature

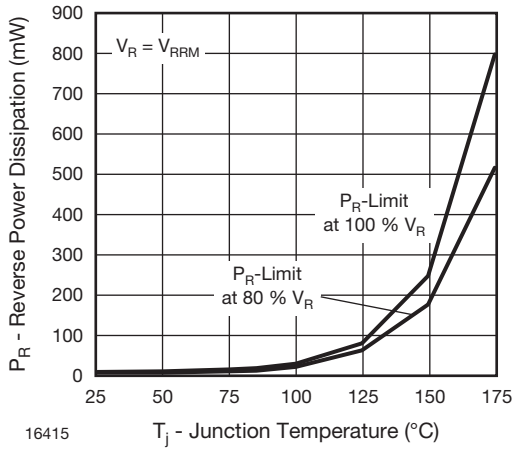



Fig. 5 - Max. Reverse Power Dissipation vs. Junction Temperature

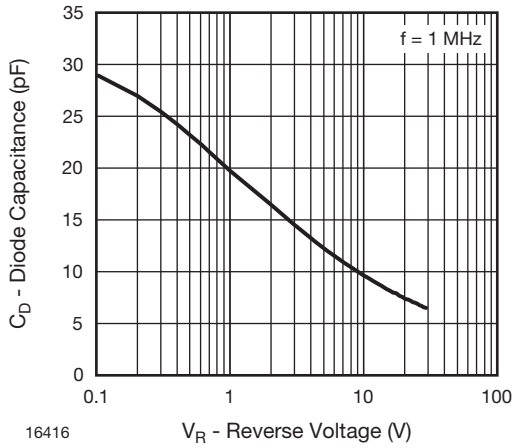
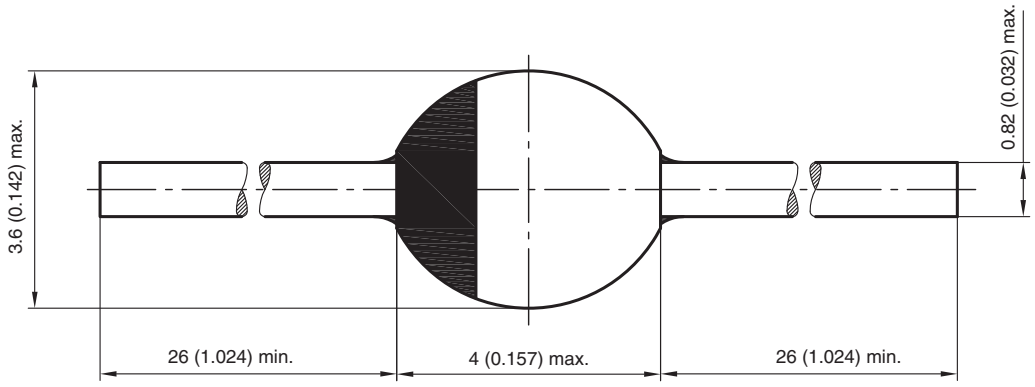



Fig. 6 - Diode Capacitance vs. Reverse Voltage

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

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