



# Dioda BYV27-600 VISHAY 2A 600V 40ns SOD57



## Dane techniczne:

Nazwa: BYV27-600

Typ: dioda szybka

Napięcie wsteczne maksymalne: 600V

Napięcie przewodzenia maksymalne: 1,35V

Prąd przewodzenia: 2A

Prąd w impulsie maksymalny: 50A

Prąd upływu: 150 $\mu$ A

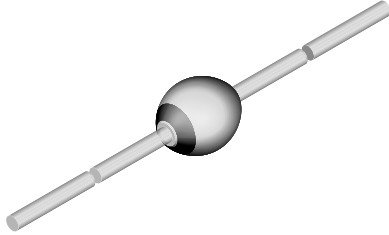
Czas gotowości: 40ns

Obudowa: SOD57

Montaż: przewlekany(THT)

Producent: VISHAY

## Ultra Fast Avalanche Sinterglass Diode



949539

### FEATURES

- Glass passivated junction
- Hermetically sealed axial-leaded glass envelope
- Low reverse current
- Ultra fast soft recovery switching
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition


**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

- Electronic ballast
- SMPS

### PARTS TABLE

PART	TYPE DIFFERENTIATION	PACKAGE
BYV27-600	$V_R = 600 \text{ V}; I_{FAV} = 2 \text{ A}$	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	BYV27-600	$V_R = V_{RRM}$	600	V
Peak forward surge current	$t_p = 10 \text{ ms}$ , half sine wave		$I_{FSM}$	50	A
Average forward current	$T_{amb} = 50 \text{ }^\circ\text{C}$ , $l = 10 \text{ mm}$		$I_{FAV}$	2	A
Non repetitive reverse avalanche energy	Inductive load, $I_{(BR)R} = 400 \text{ mA}$		$E_R$	10	mJ
Junction and storage temperature range			$T_j = T_{stg}$	- 55 to + 175	$^\circ\text{C}$

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

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Junction ambient	Lead length $l = 10 \text{ mm}$ , $T_L = \text{constant}$	$R_{thJA}$	45	K/W
	On PC board with spacing 25 mm	$R_{thJA}$	100	K/W

ELECTRICAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	I <sub>F</sub> = 1 A		V <sub>F</sub>	-	-	1.15	V
	I <sub>F</sub> = 3 A		V <sub>F</sub>	-	-	1.35	V
	I <sub>F</sub> = 1 A, T <sub>j</sub> = 175 °C		V <sub>F</sub>	-	-	0.85	V
	I <sub>F</sub> = 3 A, T <sub>j</sub> = 175 °C		V <sub>F</sub>	-	-	1.15	V
Reverse current	V <sub>R</sub> = V <sub>RRM</sub>		I <sub>R</sub>	-	-	5	μA
	V <sub>R</sub> = V <sub>RRM</sub> , T <sub>j</sub> = 150 °C		I <sub>R</sub>	-	-	150	μA
Reverse breakdown voltage	I <sub>R</sub> = 100 μA	BYV27-600	V <sub>(BR)R</sub>	600	-	-	V
Reverse recovery time	I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1 A, i <sub>R</sub> = 0.25 A		t <sub>rr</sub>	-	-	40	ns
Forward recovery	I <sub>F</sub> = 1 A		V <sub>FP</sub>	-	3.4	-	V
Forward recovery time	I <sub>F</sub> = 1 A		t <sub>fr</sub>	-	250	-	ns

TYPICAL CHARACTERISTICS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

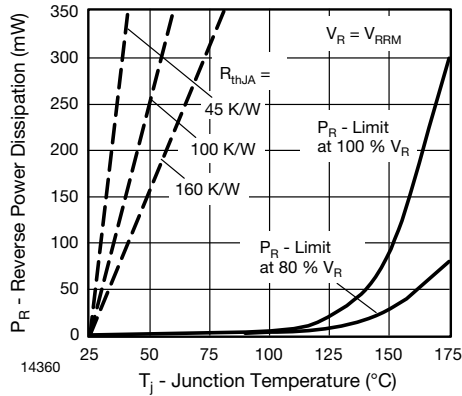


Fig. 1 - Max. Reverse Power Dissipation vs. Junction Temperature

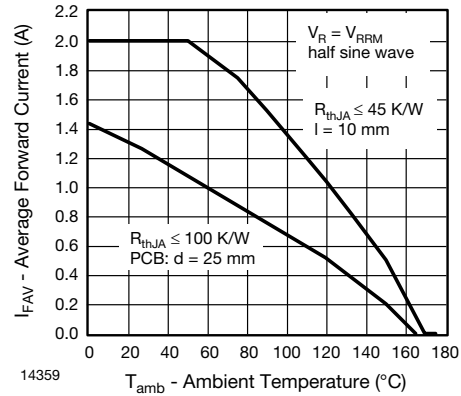


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

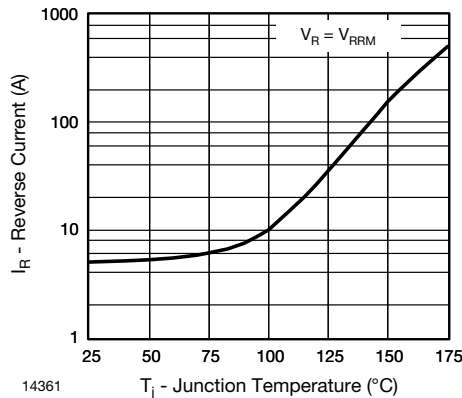


Fig. 2 - Max. Reverse Current vs. Junction Temperature

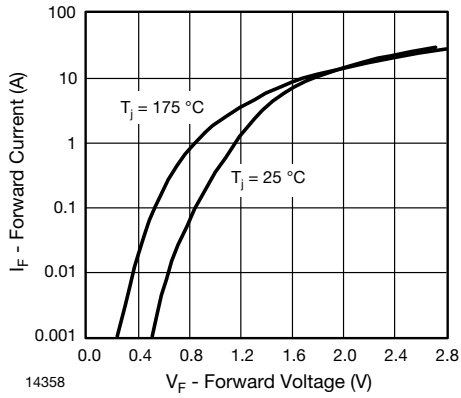


Fig. 4 - Max. Forward Current vs. Forward Voltage

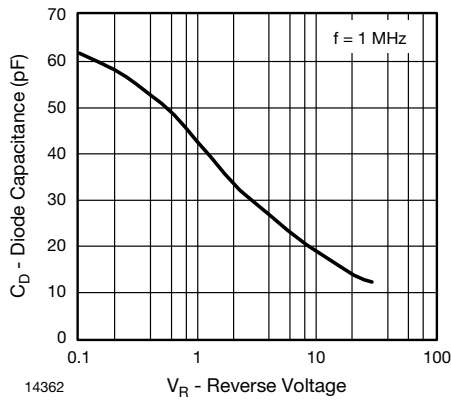
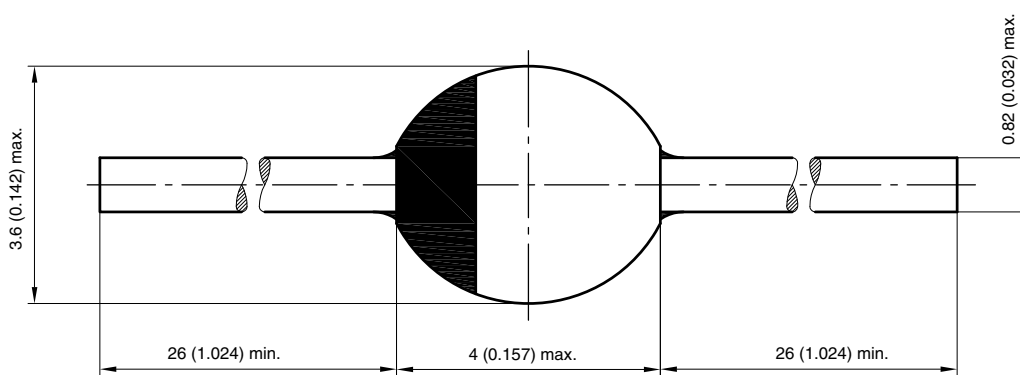


Fig. 5 - Typ. Diode Capacitance vs. Reverse Voltage

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


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