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BYV26A, BYV26B, BYV26C, BYV26D, BYV26E

Vishay Semiconductors

Ultra-Fast Avalanche Sinterglass Diode



949539

FEATURES

- · Glass passivated junction
- · Hermetically sealed package
- · Very low switching losses
- Low reverse current
- · High reverse voltage
- Material categorization:
 For definitions of compliance please see www.vishay.com/doc?99912

Ph



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

- · Switched mode power supplies
- · High-frequency inverter circuits

ORDERING INFORMATION (Example)						
DEVICE NAME	ORDERING CODE	RDERING CODE TAPED UNITS MINIMUM ORDER QUANTITY				
BYV26E	BYV26E-TR	5000 per 10" tape and reel	25 000			
BYV26E	BYV26E-TAP	5000 per ammopack	25 000			

PARTS TABLE					
PART	TYPE DIFFERENTIATION	PACKAGE			
BYV26A	$V_R = 200 \text{ V}; I_{F(AV)} = 1 \text{ A}$	SOD-57			
BYV26B	V _R = 400 V; I _{F(AV)} = 1 A	SOD-57			
BYV26C	$V_R = 600 \text{ V}; I_{F(AV)} = 1 \text{ A}$	SOD-57			
BYV26D	$V_R = 800 \text{ V}; I_{F(AV)} = 1 \text{ A}$	SOD-57			
BYV26E	V _R = 1000 V; I _{F(AV)} = 1 A	SOD-57			

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT		
	See electrical characteristics	BYV26A	$V_R = V_{RRM}$	200	V		
		BYV26B	$V_R = V_{RRM}$	400	V		
Reverse voltage = repetitive peak reverse voltage		BYV26C	$V_R = V_{RRM}$	600	V		
voltage		BYV26D	$V_R = V_{RRM}$	800	V		
		BYV26E	$V_R = V_{RRM}$	1000	V		
Peak forward surge current	t _p = 10 ms, half sine wave		I _{FSM}	30	Α		
Average forward current			I _{F(AV)}	1	Α		
Non repetitive reverse avalanche energy	I _{(BR)R} = 1 A, inductive load		E _R	10	mJ		
Junction and storage temperature range			$T_i = T_{stq}$	- 55 to + 175	°C		

MAXIMUM THERMAL RESISTANCE (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION SYMB		VALUE	UNIT	
Junction ambient	I = 10 mm, T _L = constant	R_{thJA}	45	K/W	

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PARAMETER	TERISTICS (T _{amb} = 25 °C, u	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	I _F = 1 A		V_{F}	-	-	2.5	V
	I _F = 1 A, T _j = 175 °C		V_{F}	-	-	1.3	V
Reverse current	$V_R = V_{RRM}$		I _R	-	-	5	μΑ
	V _R = V _{RRM} , T _j = 150 °C		I _R	-	-	100	μΑ
Reverse breakdown voltage	I _R = 100 μA	BYV26A	V _{(BR)R}	300	-	-	V
		BYV26B	V _{(BR)R}	500	-	-	V
		BYV26C	V _{(BR)R}	700	-	-	V
		BYV26D	V _{(BR)R}	900	-	-	V
		BYV26E	V _{(BR)R}	1100	-	-	V
Reverse recovery time	I _F = 0.5 A, I _R = 1 A, i _R = 0.25 A	BYV26A	t _{rr}	-	-	30	ns
		BYV26B	t _{rr}	-	-	30	ns
		BYV26C	t _{rr}	-	-	30	ns
		BYV26D	t _{rr}	-	-	75	ns
		BYV26E	t _{rr}	-	=	75	ns

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

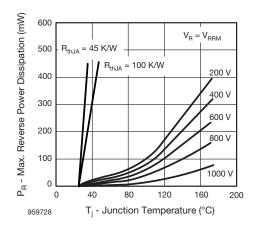


Fig. 1 - Max. Reverse Power Dissipation vs. Junction Temperature

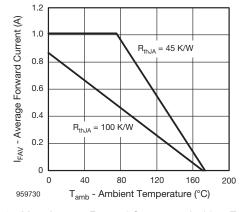


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

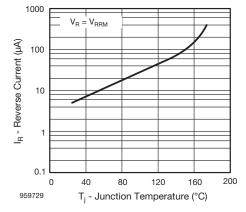


Fig. 2 - Max. Reverse Current vs. Junction Temperature

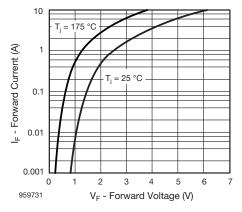


Fig. 4 - Max. Reverse Current vs. Junction Temperature

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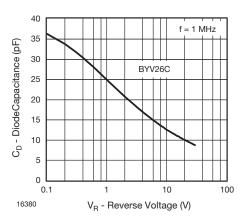


Fig. 5 - Diode Capacitance vs. Reverse Voltage

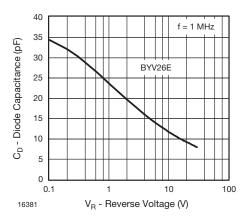
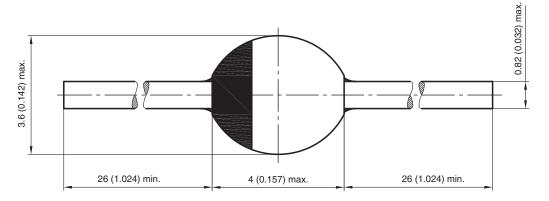


Fig. 6 - Diode Capacitance vs. Reverse Voltage

PACKAGE DIMENSIONS in millimeters (inches): SOD-57



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