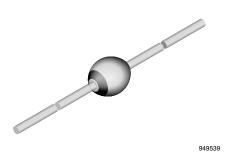


BYV26A, BYV26B, BYV26C, BYV26D, BYV26E

Vishay Semiconductors

Ultra Fast Avalanche Sinterglass Diode



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
- Very low switching losses
- Low reverse current
- High reverse voltage
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition

APPLICATIONS

- Switched mode power supplies
- High-frequency inverter circuits

PARTS TABLE				
PART	TYPE DIFFERENTIATION	PACKAGE		
BYV26A	V _R = 200 V; I _{FAV} = 1 A	SOD-57		
BYV26B	V _R = 400 V; I _{FAV} = 1 A	SOD-57		
BYV26C	V _R = 600 V; I _{FAV} = 1 A	SOD-57		
BYV26D	V _R = 800 V; I _{FAV} = 1 A	SOD-57		
BYV26E	V _R = 1000 V; I _{FAV} = 1 A	SOD-57		

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT	
Reverse voltage = repetitive peak reverse voltage	See electrical characteristics	BYV26A	$V_{R} = V_{RRM}$	200	V	
		BYV26B	$V_{R} = V_{RRM}$	400	V	
		BYV26C	$V_{R} = V_{RRM}$	600	V	
		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	А	
Average forward current			I _{FAV}	1	А	
Non repetitive reverse avalanche energy	$I_{(BR)R} = 1$ A, inductive load		E _R	E _R 10		
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	$I = 10 \text{ mm}, T_L = \text{constant}$	R _{thJA}	45	K/W	



HALOGEN

BYV26A, BYV26B, BYV26C, BYV26D, BYV26E



Ultra Fast Avalanche Sinterglass Diode

ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	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	μA
	V _R = V _{RRM} , T _j = 150 °C		I _R	-	-	100	μA
Reverse breakdown voltage	I _R = 100 μΑ	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)

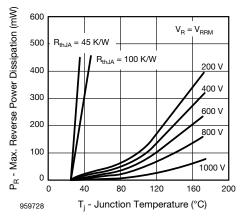


Fig. 1 - Max. Reverse Power Dissipation vs. Junction Temperature

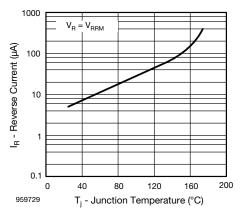


Fig. 2 - Max. Reverse Current vs. Junction Temperature

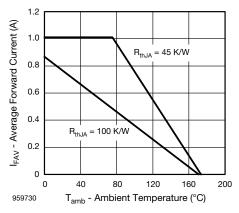


Fig. 3 - Max. Average Forward Current vs. Ambient Temperature

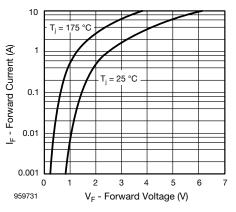


Fig. 4 - Max. Reverse Current vs. Junction Temperature



BYV26A, BYV26B, BYV26C, BYV26D, BYV26E

Ultra Fast Avalanche Sinterglass Vi Diode

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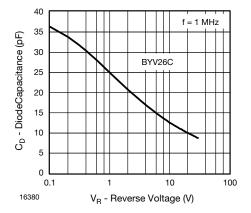


Fig. 5 - Diode Capacitance vs. Reverse Voltage

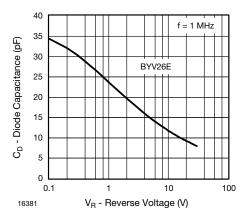
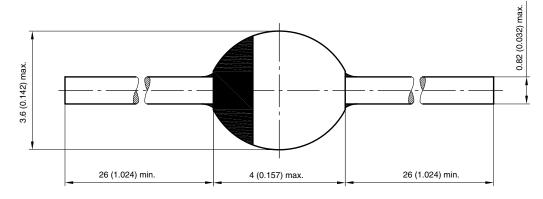


Fig. 6 - Diode Capacitance vs. Reverse Voltage

PACKAGE DIMENSIONS in millimeters (inches): SOD-57



20543 Rev. 3 - Date: 09.February 2005 Document no.:6.563-5006.3-4



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