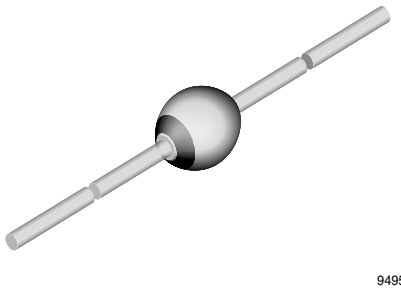
Ultra Fast Avalanche Sinterglass Diode

Features

- Glass passivated junction
- Hermetically sealed package
- Very low switching losses
- Low reverse current
- High reverse voltage
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



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Applications

Switched mode power supplies
High-frequency inverter circuits

Mechanical Data

Case: SOD-57 Sintered glass case

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: approx. 369 mg

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 sinewave		I_{FSM}	30	A
Average forward current			I_{FAV}	1	A
Non repetitive reverse avalanche energy	$I_{(BR)R}$ = 1 A, inductive load		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	l = 10 mm, T_L = constant	R_{thJA}	45	K/W

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 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-BYV26C	t_{rr}			30	ns
		BYV26D-BYV26E	t_{rr}			75	ns

Typical Characteristics (Tamb = 25 °C unless otherwise specified)

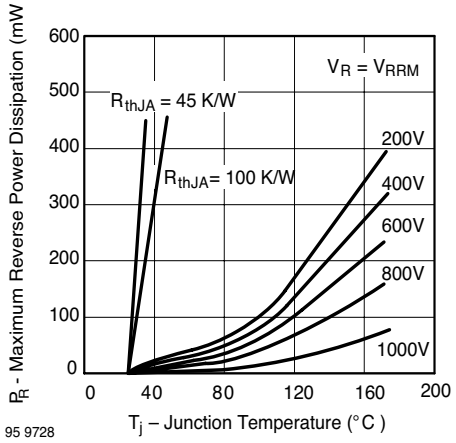

Figure 1. Max. Reverse Power Dissipation vs. Junction Temperature

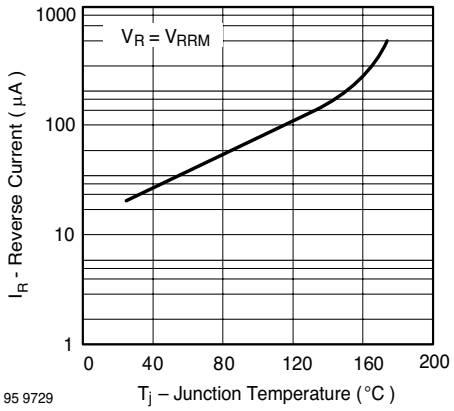

Figure 2. Max. Reverse Current vs. Junction Temperature