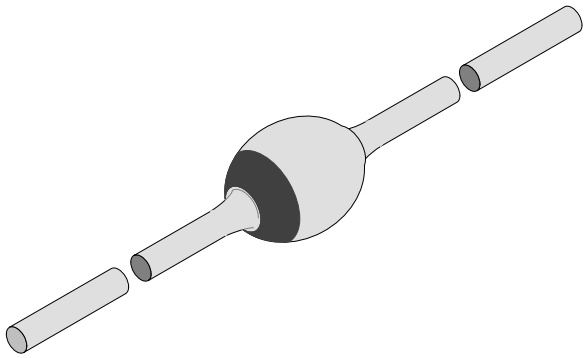
BYV26

Very Fast Soft–Recovery Avalanche Rectifier

Features

- Glass passivated junction
- Hermetically sealed package
- Very low switching losses
- Low reverse current
- High reverse voltage



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Applications

Switched mode power supplies
High–frequency inverter circuits

Absolute Maximum Ratings

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage =Repetitive peak reverse voltage		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=10ms, half sinewave		I_{FSM}	30	A
Average forward current			I_{FAV}	1	A
Non repetitive reverse avalanche energy	$I_{(BR)R}$=400mA, inductive load		E_R	10	mJ
Junction and storage temperature range			$T_j=T_{stg}$	–55...+175	°C

Maximum Thermal Resistance

T_j = 25°C

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	l=10mm, T_L=constant	R_{thJA}	45	K/W

BYV26

Electrical Characteristics

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=1A		V_F			2.5	V
	I_F=1A, 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=100µA	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=0.5A, I_R=1A, i_R=0.25A	BYV26A –BYV26C	t_{rr}			30	ns
		BYV26D –BYV26E	t_{rr}			75	ns

Characteristics (T_j = 25°C unless otherwise specified)

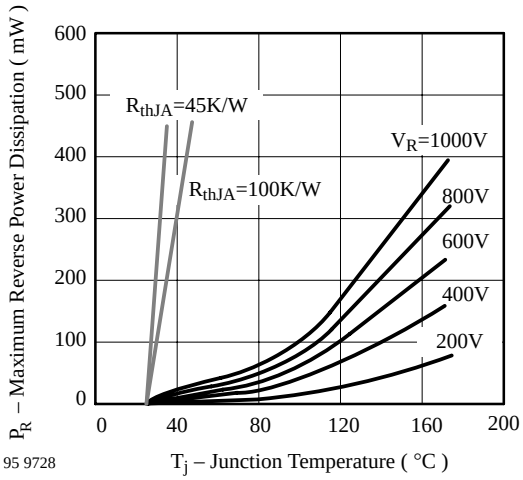

Figure 1. Max. Reverse Power Dissipation vs. Junction Temperature

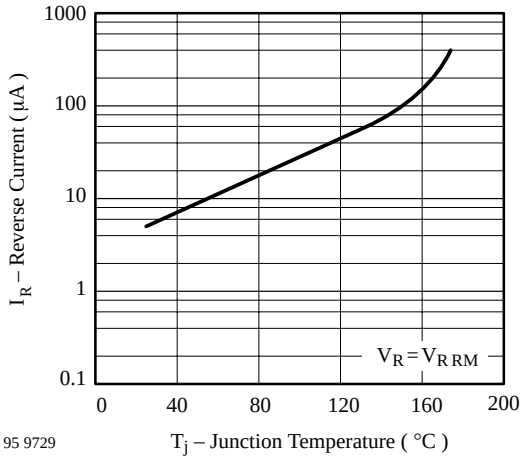

Figure 2. Max. Reverse Current vs. Junction Temperature

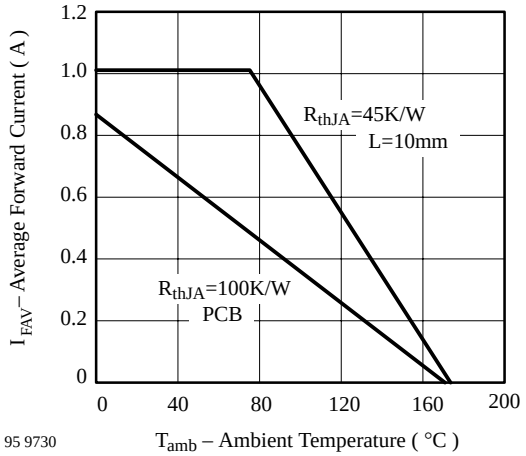

Figure 3. Max. Average Forward Current vs. Ambient Temperature

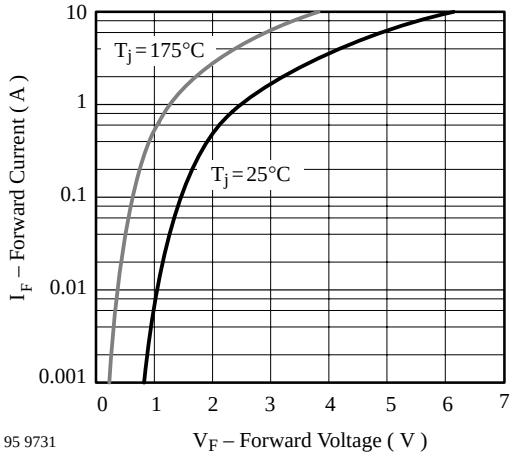

Figure 4. Max. Forward Current vs. Forward Voltage

Dimensions in mm