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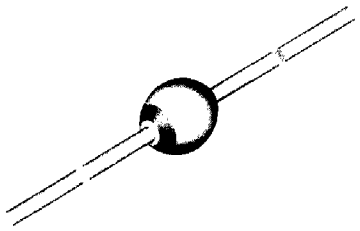
BY448 / BY458

Standard Avalanche Sinterglass Diode

Features

- Glass passivated junction
- Hermetically sealed package



Applications

High voltage rectification diode
Efficiency diode in horizontal deflection 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
BY448	V_R = 1500 V; I_{FAV} = 2 A	SOD-57
BY458	V_R = 1200 V; I_{FAV} = 2 A	SOD-57

Absolute Maximum Ratings

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Part	Symbol	Value	Unit
Reverse voltage	see electrical characteristics	BY448	$V_R = V_{RRM}$	1500	V
		BY458	$V_R = V_{RRM}$	1200	V
Peak forward surge current	t_p = 10 ms, half sinewave		I_{FSM}	30	A
Average forward current			I_{FAV}	2	A
Junction temperature			T_j	140	°C
Storage temperature range			T_{stg}	- 55 to + 175	°C
Non repetitive reverse avalanche energy	$I_{(BR)R}$ = 0.4 A		E_R	10	mJ

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
	on PC board with spacing 25 mm	R_{thJA}	100	K/W

BY448 / BY458

Electrical Characteristics

T_{amb} = 25 °C, unless otherwise specified

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Forward voltage	I_F = 3 A	V_F			1.6	V
Reverse current	$V_R = V_{RRM}$	I_R			3	µA
	$V_R = V_{RRM}$, T_j = 140 °C	I_R			140	µA
Total reverse recovery time	I_F = 1 A, - d_{iF}/d_t = 0.05 A/µs	t_{rr}			20	µs
Reverse recovery time	I_F = 0.5 A, I_R = 1 A, i_R = 0,25 A	t_{rr}			2	µs

Package Dimensions in mm (Inches)