

■ Switching Diodes

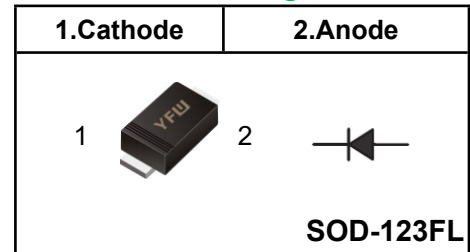
FEATURES

- ◆ For surface mounted applications
- ◆ Glass Passivated Chip Junction
- ◆ Fast reverse recovery time
- ◆ Ideal for automated placement
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SOD-123FL
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 15mg / 0.00053oz

Pinning



Marking Code

BAV100WL	B100
BAV101WL	B101
BAV102WL	B102
BAV103WL	B103

Absolute Maximum Ratings at 25 °C

Parameter	Symbols	BAV100WL	BAV101WL	BAV102WL	BAV103WL	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60	120	200	250	V
Maximum RMS voltage	V_{RMS}	50	100	150	200	V
Continuous Forward Current	I_F	250				mA
Repetitive Peak Forward Current	I_{FRM}	625				mA
Non-reptitive Peak Forward Surge Current	at 1s	1				A
	at 1ms	3				
	at 1us	9				
Total Power Dissipation	P_{tot}	500				mW
Typical Thermal Resistance (1)	$R_{\theta JA}$	450				°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150				°C

(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Characteristics at Ta = 25 °C

Parameter	Symbols	BAV100WL	BAV101WL	BAV102WL	BAV103WL	Units
Reverse Breakdown Voltage at $I_R=100\mu A$	$V_{(BR)R}$	60	120	200	250	V
Maximum Forward Voltage	at 100 mA	1.00				V
	at 200 mA	1.25				
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_a=25^\circ C$	0.1				uA
	$T_a=100^\circ C$	15				
Typical Junction Capacitance at $V_R=4V, f=1MHz$	C_j	5				pF
Maximum Reverse Recovery Time	T_{rr}	50				nS

Fig.1 Forward Current Derating Curve

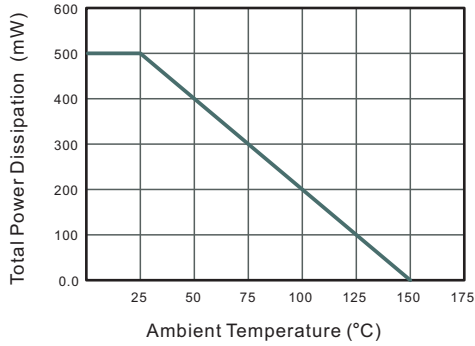


Fig.2 Typical Reverse Characteristics

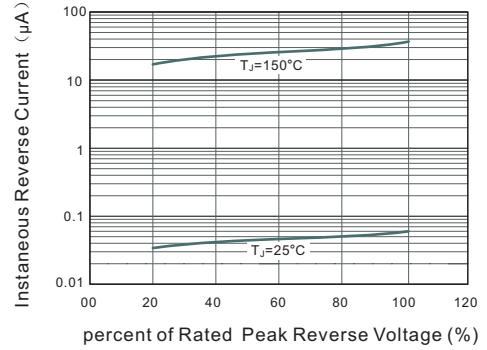


Fig.3 Typical Instantaneous Forward Characteristics

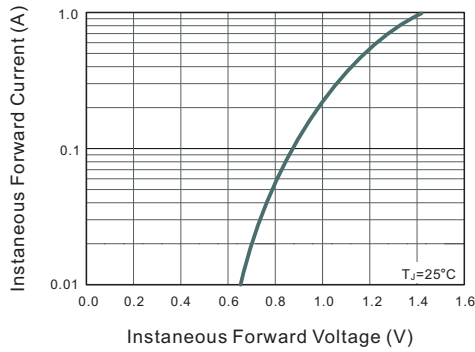
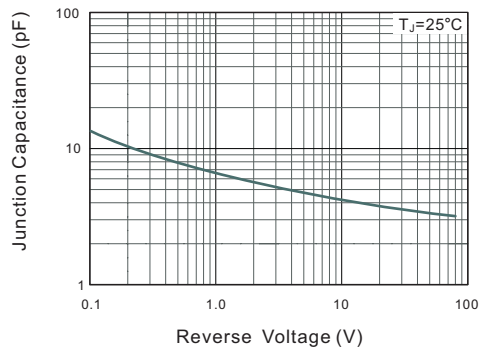
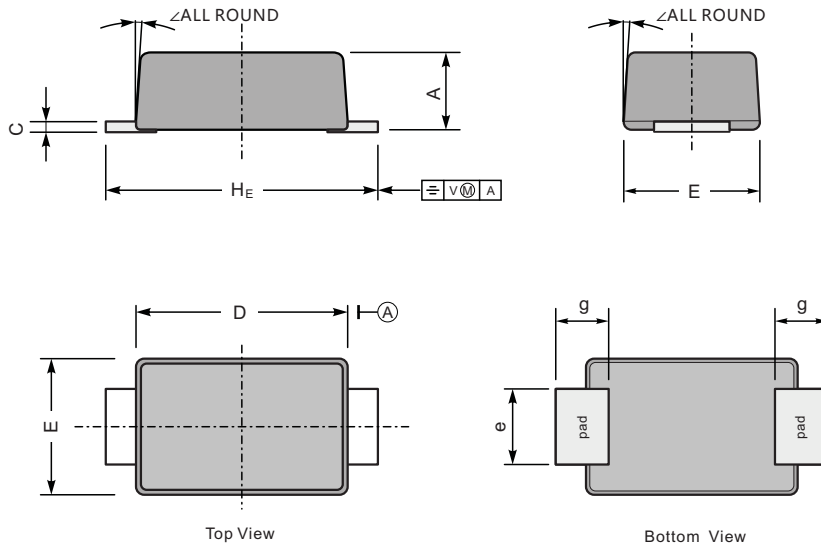


Fig.4 Typical Junction Capacitance



Package Outline SOD-123FL

Plastic surface mounted package; 2 leads



UNIT		A	C	D	E	e	g	H _E	\angle
mm	max	1.3	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

The recommended mounting pad size



Unit: $\frac{\text{mm}}{\text{(mil)}}$

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-123FL	Tape/Reel, 13" reel	10000	EIA-481-1
	Tape/Reel, 7" reel	3000	EIA-481-1