

DATA SHEET

SWITCHING DIODE
GENERAL PURPOSE

BAV116W

RoHS compliant & Halogen free

Product specification— July 26, 2023 V.0



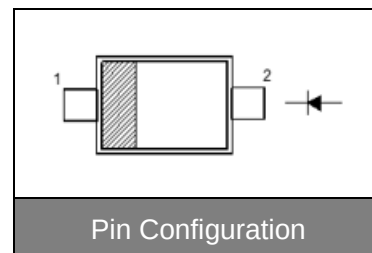
Switching Diode

Feature

- Very low leakage current
- Medium speed switching times
- Halogen and Antimony Free(HAF), RoHS compliant
- Marking code: ZX

Applications

- For low leakage current

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	110	V
Continuous Forward Current	I_{FM}	215	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4 1 0.5	A
Power Dissipation	P_D	250	mW
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	500	$^\circ\text{C/W}$

¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	110	-	V
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 150 \text{ mA}$	V_F	- - - -	0.9 1 1.1 1.25	V
Reverse Current at $V_R = 75 \text{ V}$ at $V_R = 75 \text{ V}, T_j = 125^\circ\text{C}$	I_R	- -	5 80	nA
Total Capacitance at $V_R = 0, f = 1 \text{ MHz}$	C_T	-	5	pF
Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$	t_{rr}	-	3	μs

Electrical Characteristic Curves

Figure 1. Power Derating Curve

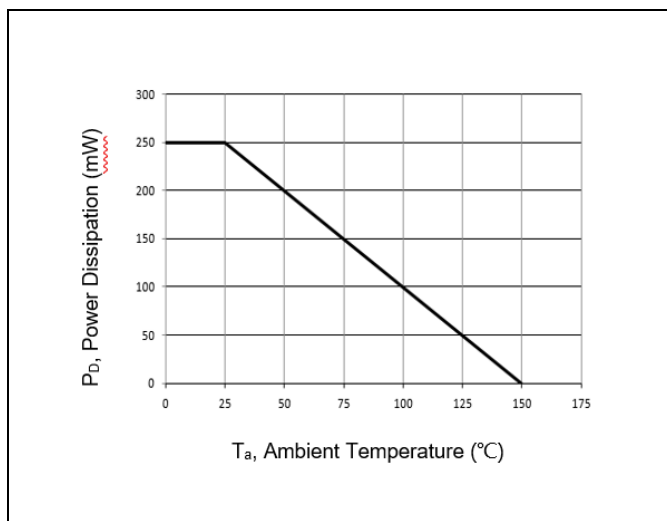


Figure 2. Capacitance Characteristics Curve

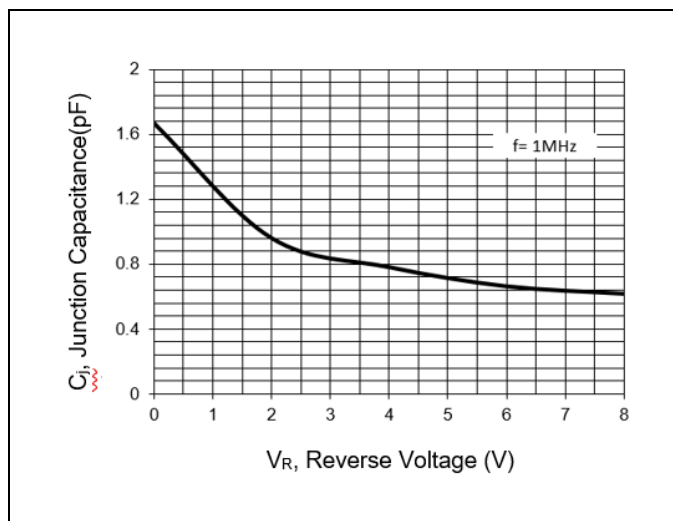


Figure 3. Reverse Characteristics Curve

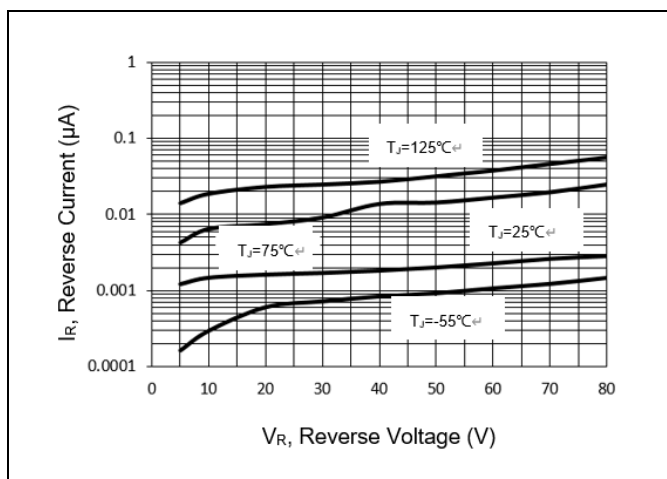
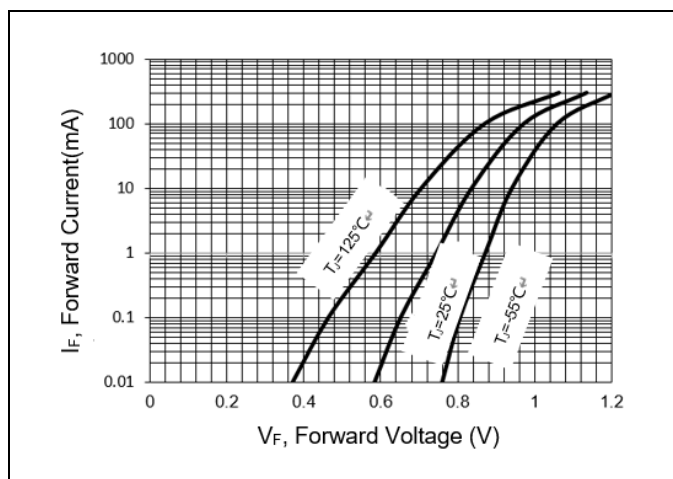
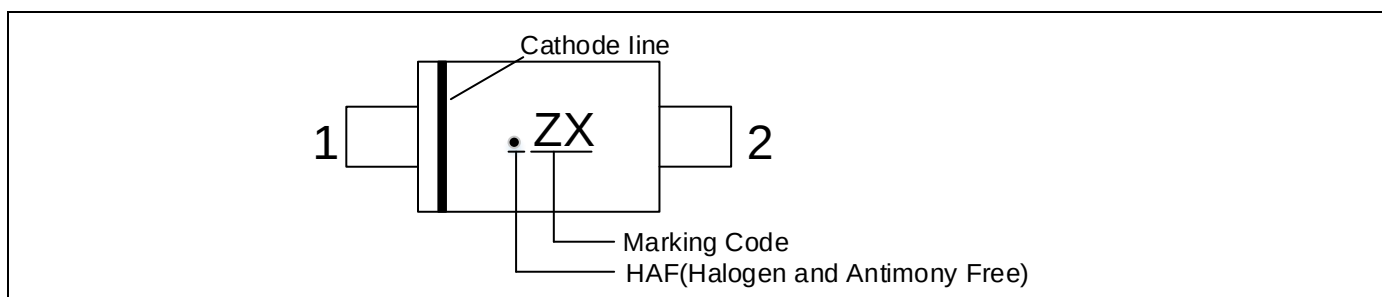


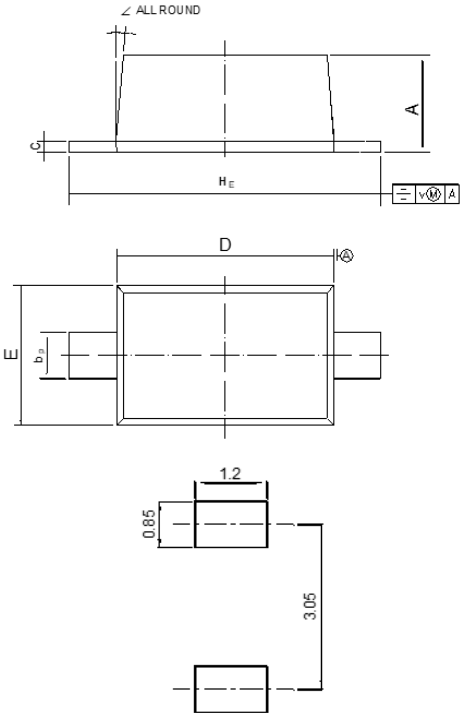
Figure 4. Forward Characteristics Curve



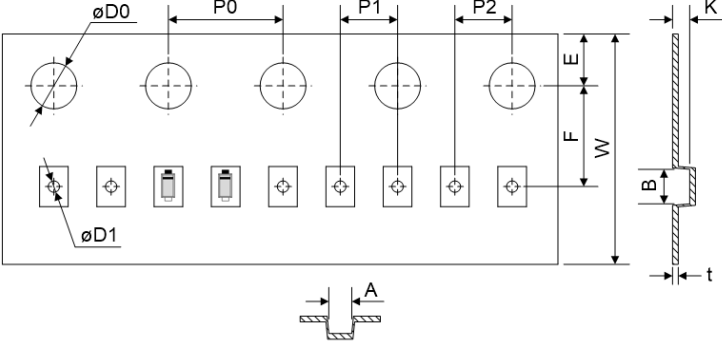
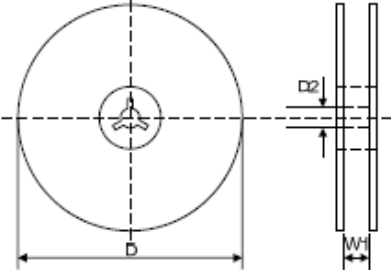
Marking Code



Dimensions (SOD-123)

	Symbol	Dimension (mm)			
		Millimeters		Inches	
		Min.	Max.	Min.	Max.
	A	1.05	1.15	0.041	0.045
b _p	0.50	0.60	0.020	0.024	
c	0.100	0.135	0.004	0.005	
D	2.60	2.70	0.102	0.106	
E	1.55	1.65	0.061	0.065	
H _E	3.55	3.85	0.140	0.152	

Packing information

Tape 	Symbol	Dimension(mm)
	W	8.00±0.10
	P0	4.00±0.10
	P1	4.00±0.10
	P2	2.00±0.10
	D0	Φ1.55±0.05
	D1	Φ1.10±0.10
	E	1.75±0.10
	F	3.50±0.05
	A	1.80±0.10
	B	4.00±0.10
	K	1.30±0.10
	t	0.20±0.02
Reel 	D	Φ177.5±0.30
	D2	Φ13.0±0.30
	W1	9.0±0.30
	Quantity: 3000PCS	

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