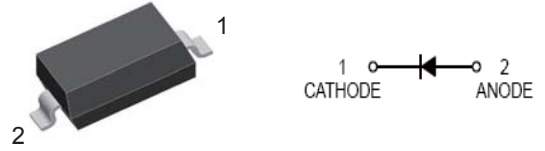


Fast Switching Diode in SOD-123

Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- Meet MSL level 2



Mechanical Data

- **Case:** SOD-123 (plastic package).
Lead free; RoHS compliant; Halogen free
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

Applications

- High Speed Switching and Reverse Polarity Protection
- High Speed Rectifying Applications
- Consumer, Automotive and Telecommunication Industry

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

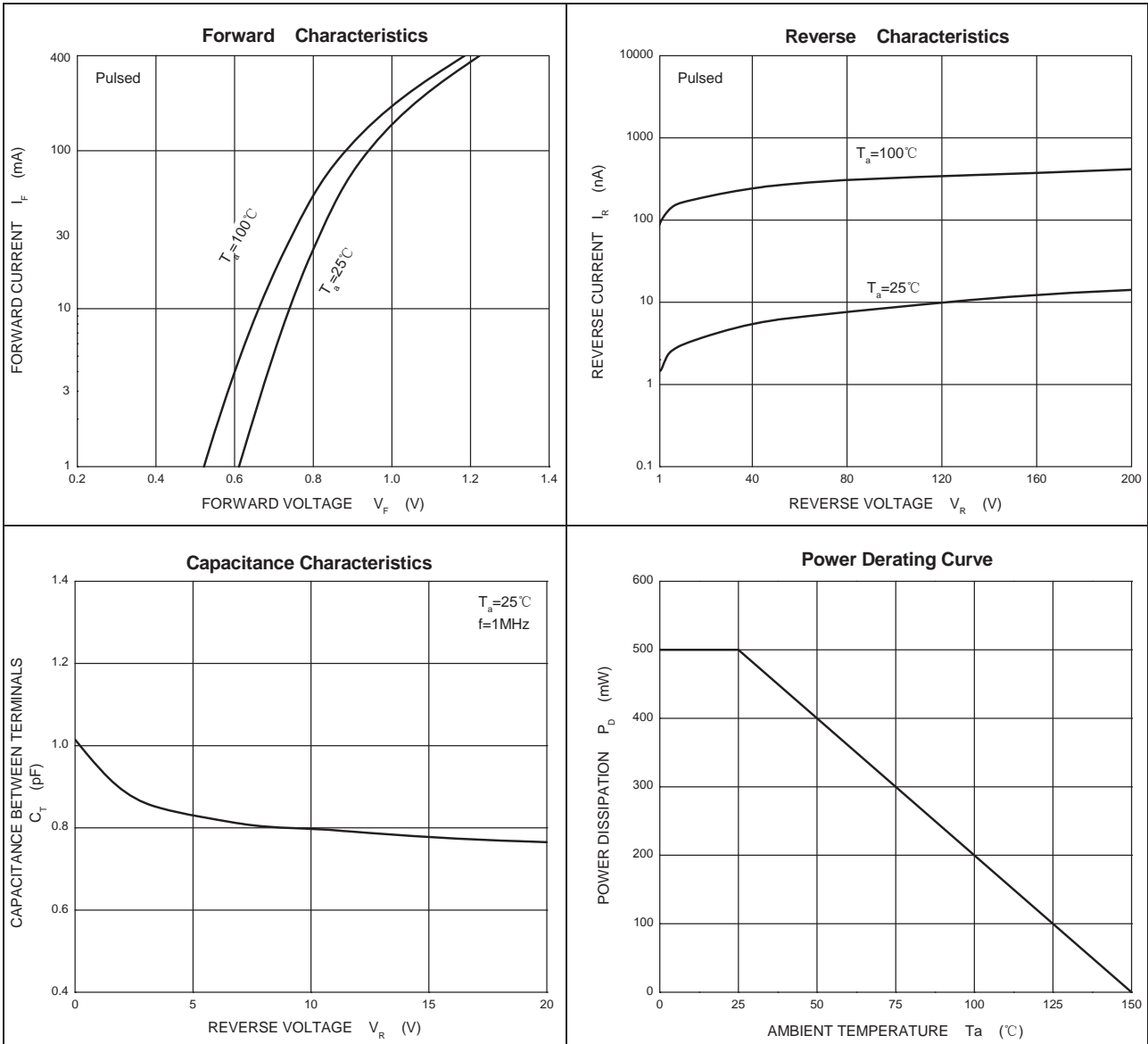
Symbol	Parameter	Value			Unit
		BAV19W	BAV20W	BAV21W	
V_{RM}	Non-Repetitive Peak Reverse Voltage	120	200	250	V
V_{RRM}	Peak Repetitive Reverse Voltage	100	150	200	V
V_{RWM}	Working Peak Reverse Voltage				
$V_{R(RMS)}$	RMS Reverse Voltage	71	106	141	V
I_O	Average Rectified Output Current	200			mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ t=8.3ms	2.0			A
P_D	Power Dissipation	500			mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250			°C/W
T_J	Junction Temperature	150			°C
T_{stg}	Storage Temperature	-55~+150			°C

Electrical Characteristics

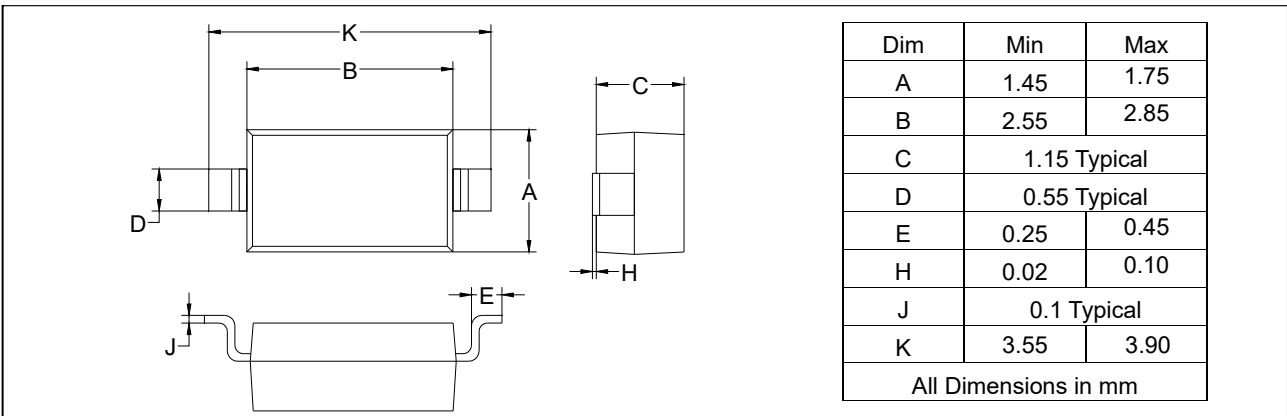
($T_A = 25\text{ °C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse current	I_R	$V_R=100V$	BAV19W		0.1	uA
		$V_R=150V$	BAV20W		0.1	
		$V_R=200V$	BAV21W		0.1	
Forward voltage	V_F	$I_F=100mA$			1	V
		$I_F=200mA$			1.25	
Total capacitance	C_{tot}	$V_R=0V, f=1MHz$			5	pF
Reverse recovery time	t_{rr}	$I_F=I_R=30mA, I_{rr}=0.1*I_R, R_L=100\Omega$			50	ns

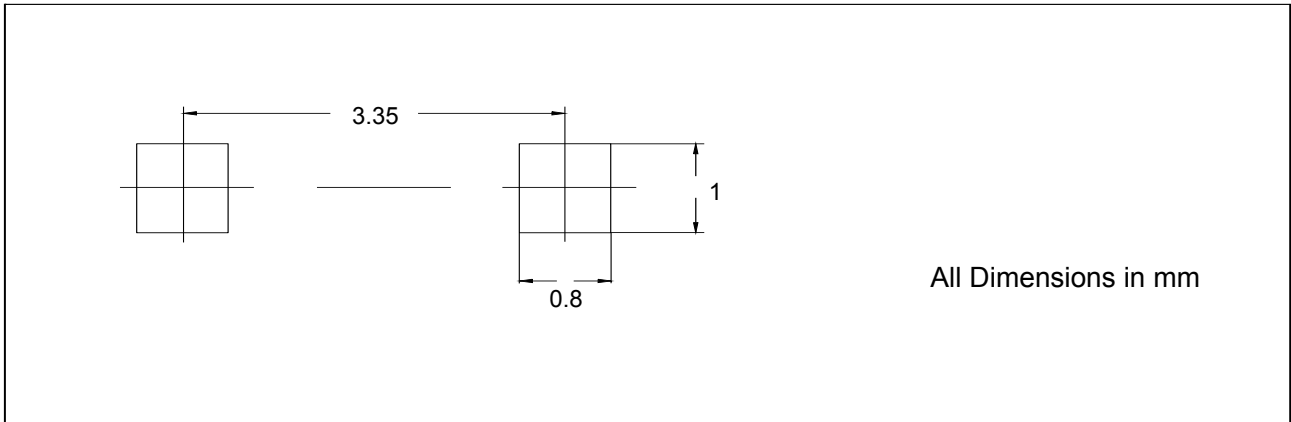
Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



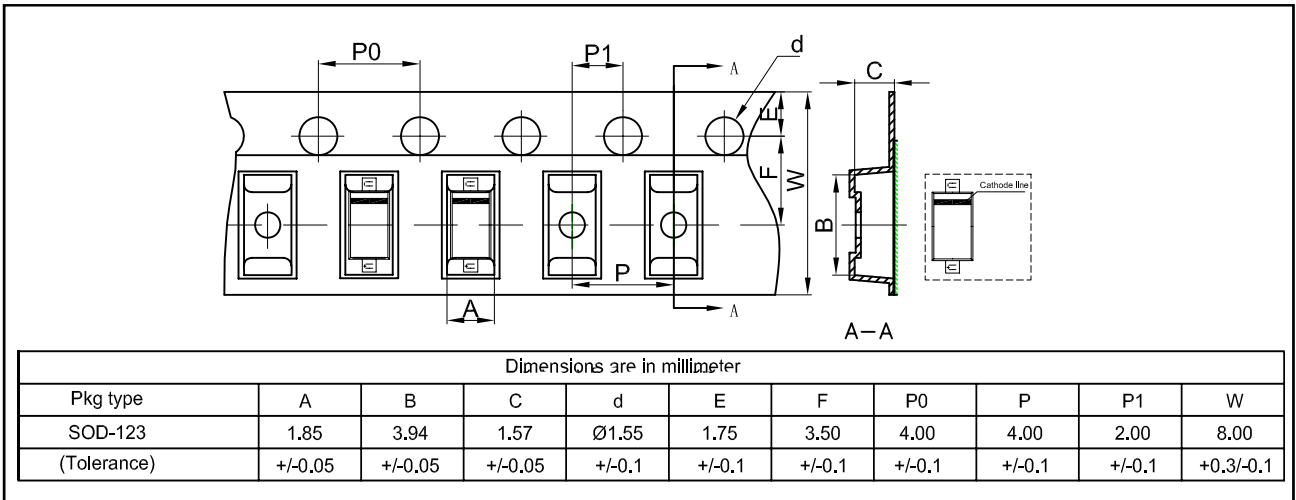
Package Dimensions



PAD Dimension



PAD Dimension



Marking

Type number	Marking code
BAV19W	A8
BAV20W	T2
BAV21W	T3

Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
BAV19W~BAV21W	SOD-123	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
1-Aug-2025	4.1	Increase MSL level

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