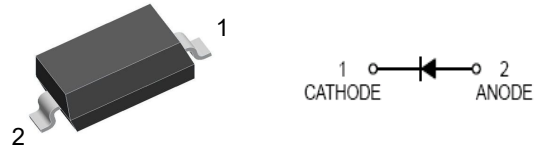


## Fast Switching Diode in SOD-323

### 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-323 (plastic package).  
Lead free; RoHS compliant
- **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

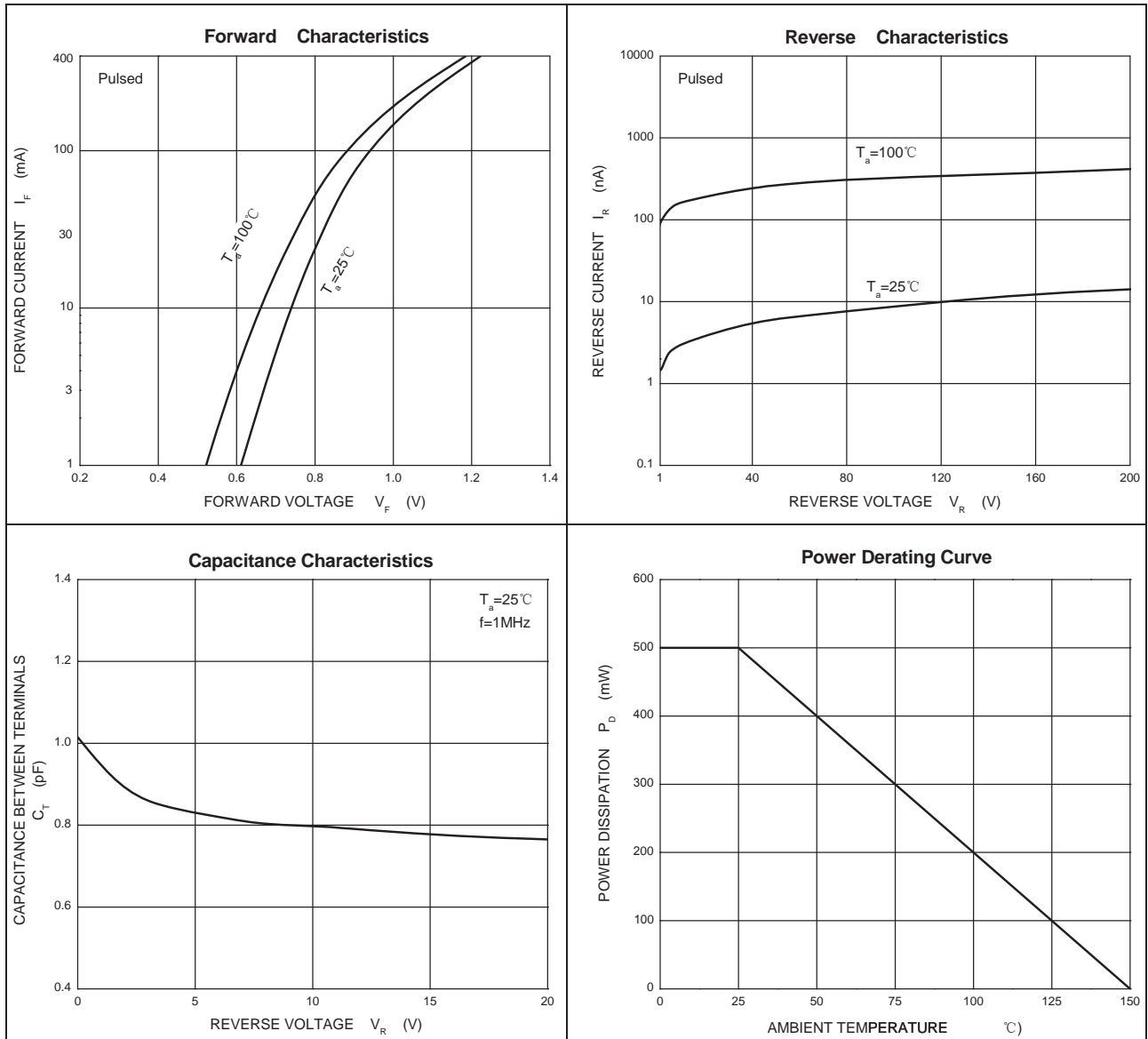
Symbol	Parameter	Value			Unit
		BAV19WS	BAV20WS	BAV21WS	
$V_{RM}$	Non-Repetitive Peak Reverse Voltage	120	200	250	V
$V_{RRM}$	Peak Repetitive Reverse Voltage	100	150	200	V
$V_{RWM}$	Working Peak Reverse Voltage				
$V_{R(RMS)}$	RMS Reverse Voltage	71	106	141	V
$I_O$	Average Rectified Output Current	200			mA
$I_{FSM}$	Non-repetitive Peak Forward Surge Current @ t=8.3ms	2.0			A
$P_D$	Power Dissipation	250			mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	500			°C/W
$T_j$	Junction Temperature	150			°C
$T_{stg}$	Storage Temperature	-55~+150			°C

### Electrical Characteristics

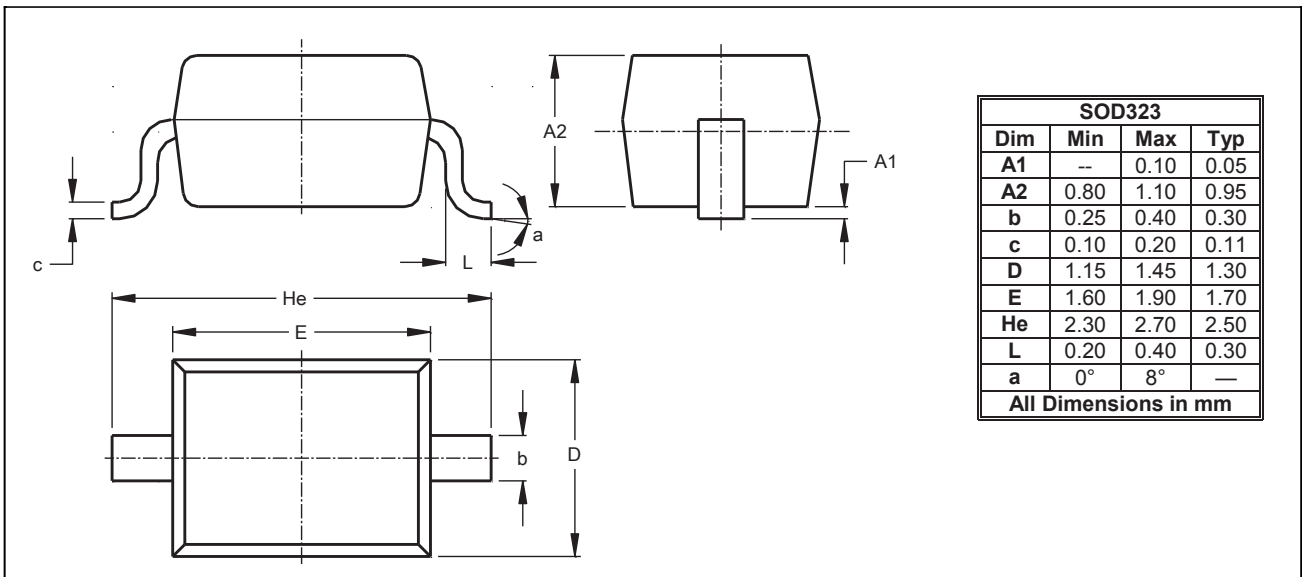
( $T_A = 25\text{ °C}$  unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse current	$I_R$	$V_R=100V$	BAV19WS		0.1	uA
		$V_R=150V$	BAV20WS		0.1	
		$V_R=200V$	BAV21WS		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

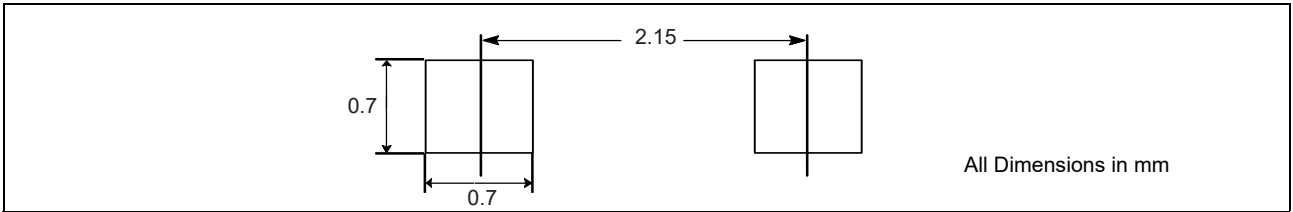
## Typical Characteristics ( $T_{amb} = 25^\circ\text{C}$ unless otherwise specified)



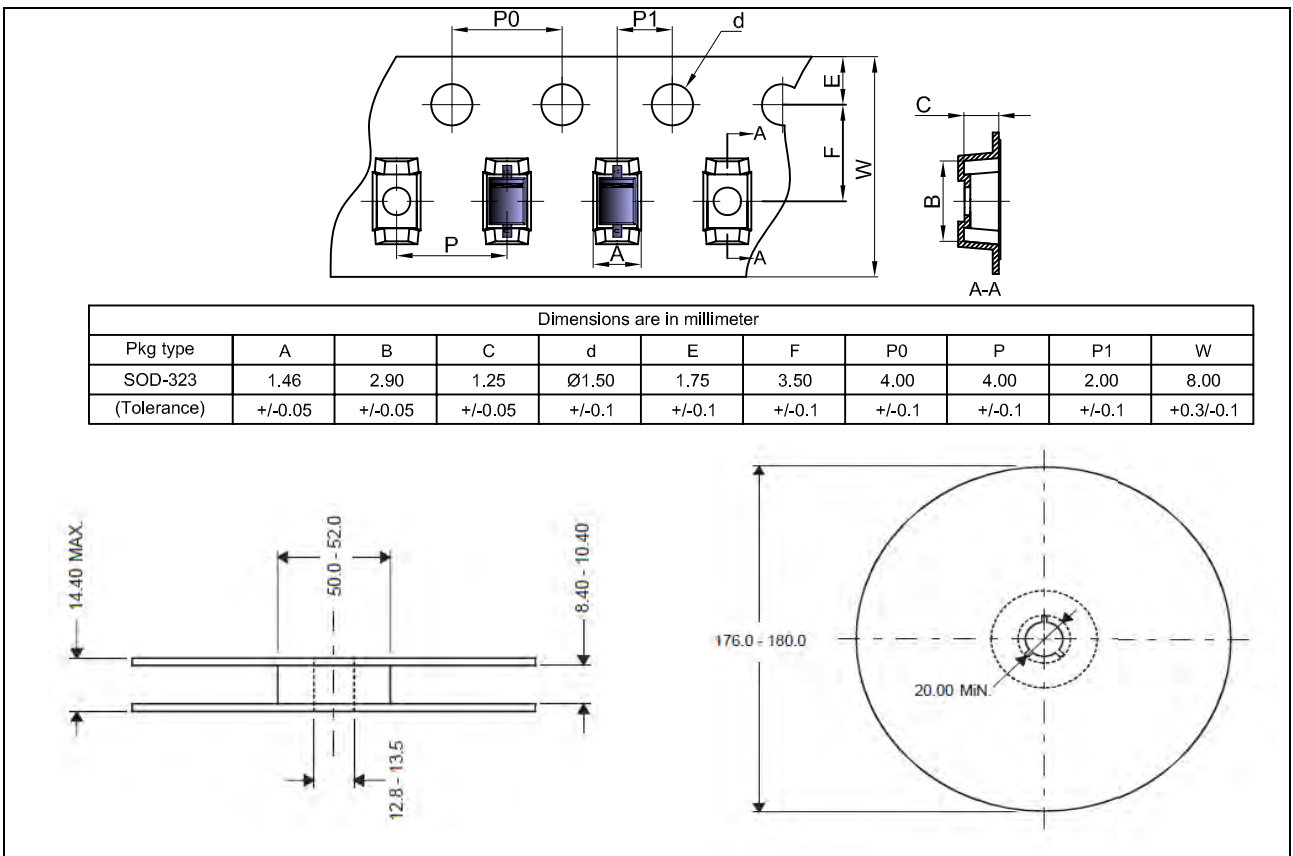
## Package Dimensions



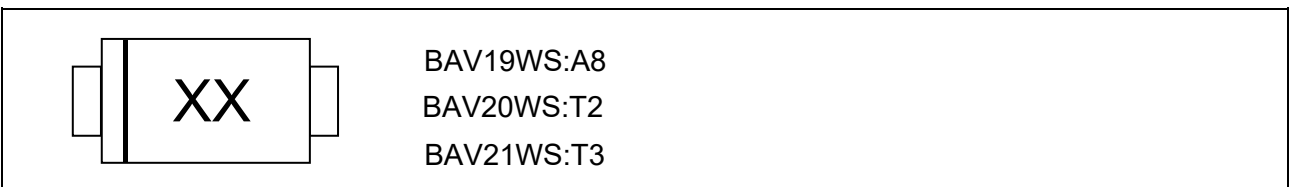
## PAD Dimension



## Package Information



## Marking



## Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
BAV19WS~BAS21WS	SOD-323	Tape and reel	3000pcs / reel	EIA STD RS-481

## Revision history

Date	Revision	Changes
1-Aug-2025	5.1	Increase MSL level

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