

# BAV19WS THRU BAV21WS

## Small-Signal Switching Diodes



### Features

- $V_R$  100V/150V/200V
- $I_{FAV}$  200mA

### Typical Applications

- Extreme fast switches

### Mechanical Data

- **Package:** SOD-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

	Marking
BAV19WS	A8
BAV20WS	T2
BAV21WS	T3

### ■ Maximum Ratings ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE	
Repetitive peak reverse voltage	$V_{RRM}$	V		BAV19WS	120
				BAV20WS	200
				BAV21WS	250
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	A	$t=1\text{s}$ $t=1\mu\text{s}$	0.5 2.5	
Average forward current	$I_{FAV}$	mA		200	
Power dissipation	$P_{tot}$	mW		250	
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	$^\circ\text{C}/\text{W}$		500	
Maximum junction temperature	$T_j$	$^\circ\text{C}$		-65 to +150	
Storage temperature range	$T_{stg}$	$^\circ\text{C}$		-65 to +150	

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE	
Maximum Forward voltage	$V_F$	V	$I_F=100\text{mA}$	1.0	
			$I_F=200\text{mA}$	1.25	
Maximum Reverse current	$I_R$	nA	BAV19WS	$V_R=100\text{V}$	100
			BAV20WS	$V_R=150\text{V}$	
			BAV21WS	$V_R=200\text{V}$	
Minimum Breakdown voltage	$V_{(BR)}$	V	BAV19WS	$I_R=10\mu\text{A}$	100
			BAV20WS	$I_R=10\mu\text{A}$	150
			BAV21WS	$I_R=10\mu\text{A}$	200
Maximum Diode capacitance	$C_D$	pF	$V_R=0\text{V}$ , $f=1\text{MHz}$	5	
Maximum Reverse recovery time	$t_{rr}$	ns	$I_F=I_R=30\text{mA}$ , $R_L=100\Omega$ , $I_{RR}=3\text{mA}$	50	

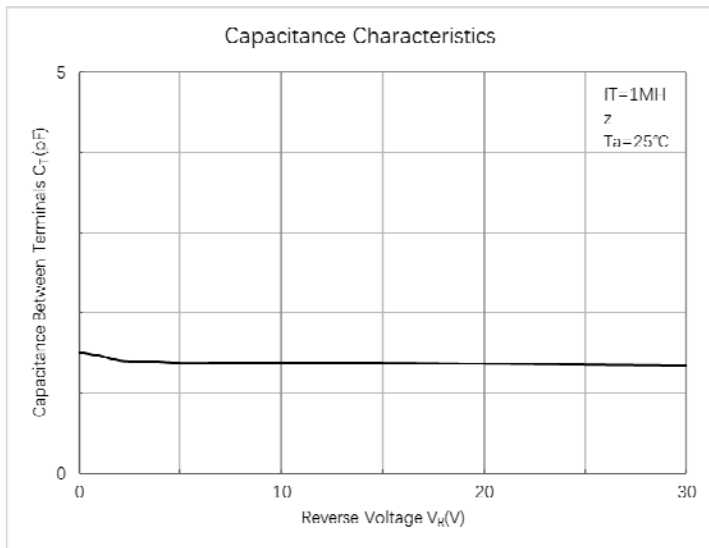
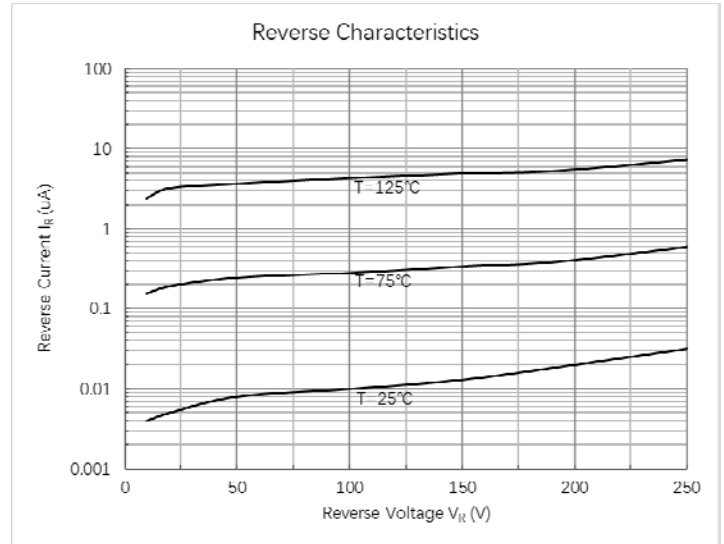
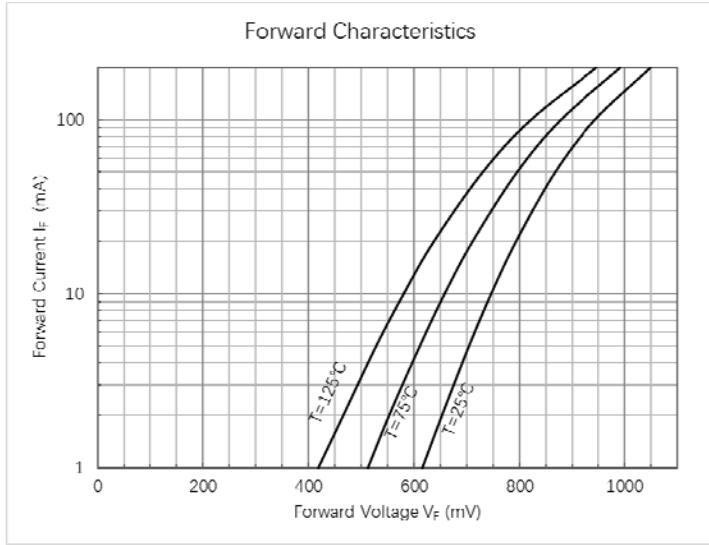


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## Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAV19WS THRU BAV21WS	F2	Approximate 0.004	3000	30000	120000	7" reel

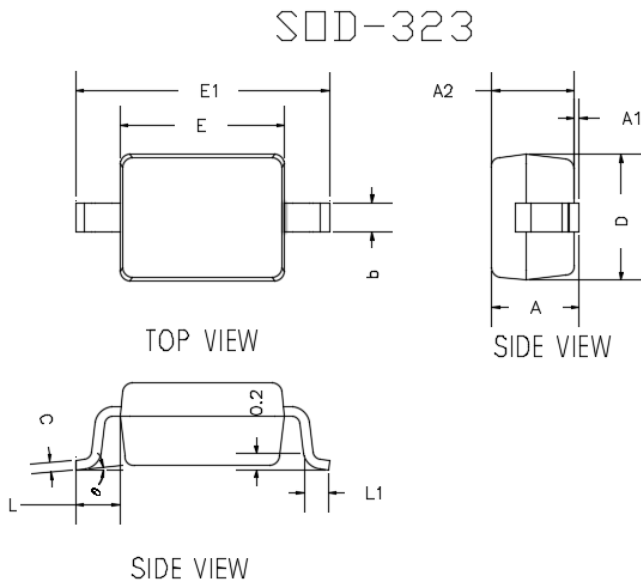
## Characteristics(Typical)





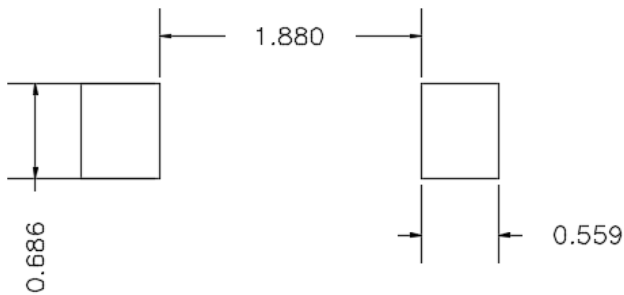
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## ■Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	---	0.0393	---	1.0000
A1	0.0000	0.0039	0.0000	0.1000
A2	0.0314	0.0354	0.8000	0.9000
b	0.0098	0.0157	0.2500	0.4000
c	0.0031	0.0059	0.0800	0.1500
D	0.0472	0.0551	1.2000	1.4000
E	0.0629	0.0709	1.6000	1.8000
E1	0.0984	0.1063	2.5000	2.7000
L	0.0187TYP		0.475TYP	
L1	0.0098	0.0157	0.250	0.400
θ	0°	8°	0°	8°

## ■Soldering Footprint



UNIT : mm

SUGGESTED SOLDER PAD LAYOUT



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