BRIGHT SEMICONDUCTOR

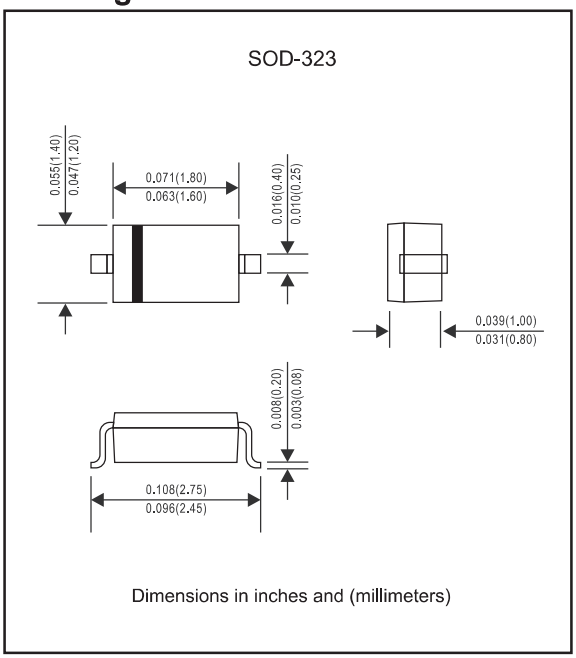
BAV19WS THRU BAV21WS

200mA Surface Mount Switching Diode-100V-200V

Features

- Low Reverse Current.
- Surface Mount Package Ideally Suited for Automatic Insertion.
- Fast Switching Speed.
- For General Purpose Switching Applications.
- Silicon epitaxial planar chip.
- Lead-free parts meet RoHS requirments.
- Compliant to Halogen-free

Package outline



Mechanical data

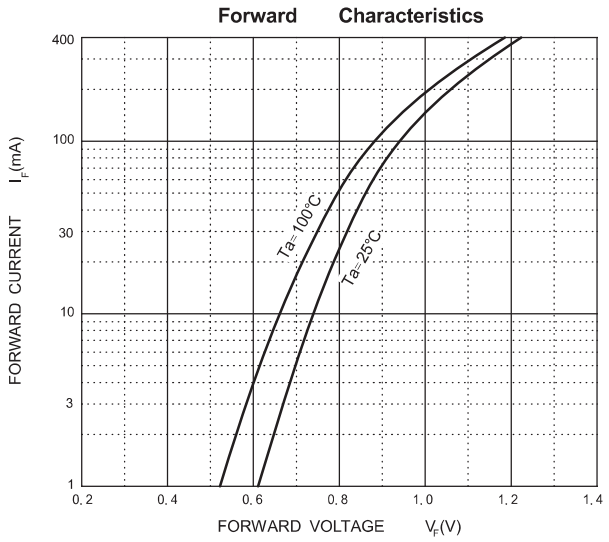
- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-323
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

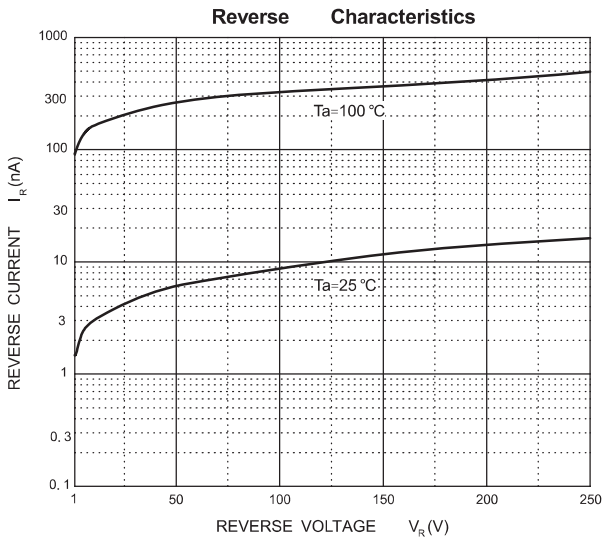
Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

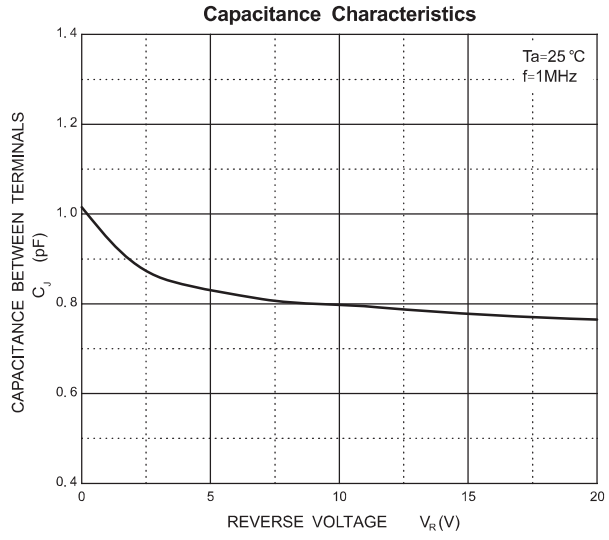
PARAMETER	CONDITIONS	Symbol	BAV19WS	BAV20WS	BAV21WS	UNIT
Non-repetitive peak reverse voltage		V_{RM}	120	200	250	V
Working Peak Reverse Voltage		V_R	100	150	200	V
RMS Reverse Voltage		$V_{R(RMS)}$	70	105	140	V
Average rectified output current(1)		I_O	200			mA
Non-repetitive peak forward surge current	@t = 8.3ms	I_{FSM}	1.7			A
Peak Forward Surge Current		I_{FRM}	625			mA
Power dissipation		P_D	200			mW
Typical Thermal resistance	Junction to ambient air(1)	$R_{\theta JA}$	625			°C/W
Operating junction temperature range		T_J	-55 ~ +150			°C
Storage temperature range		T_{STG}	-55 ~ +150			°C
Maximum Forward voltage	I_F = 100 mA I_F = 200 mA	V_F	1.00 1.25			V
Maximum Reverse leakage current	@ Working Peak Reverse Voltage	I_R	100			nA
Maximum Total capacitance	V_R = 0 V , f = 1.0MHz	C_J	5.0			pF
Maximum Reverse recovery time	I_F = I_R = 30mA , I_{RR} = 0.1 X I_R , R_L = 100$_{OHM}$	t_{rr}	50			ns

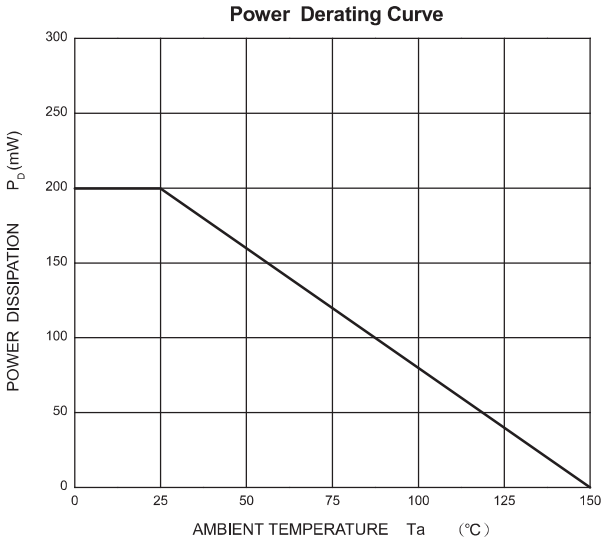
Note 1. Valid provided that electrodes are kept at ambient temperature.

Rating and characteristic curves(BAV19WS THRU BAV21WS)









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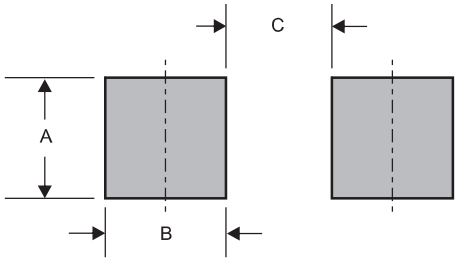
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
BAV19WS	A8
BAV20WS	T2
BAV21WS	T3

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-323	0.032 (0.82)	0.022 (0.56)	0.069 (1.75)

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-323	7"	3000	4.0	30,000	195*195*150	178	460*400*420	360,000	14.8