

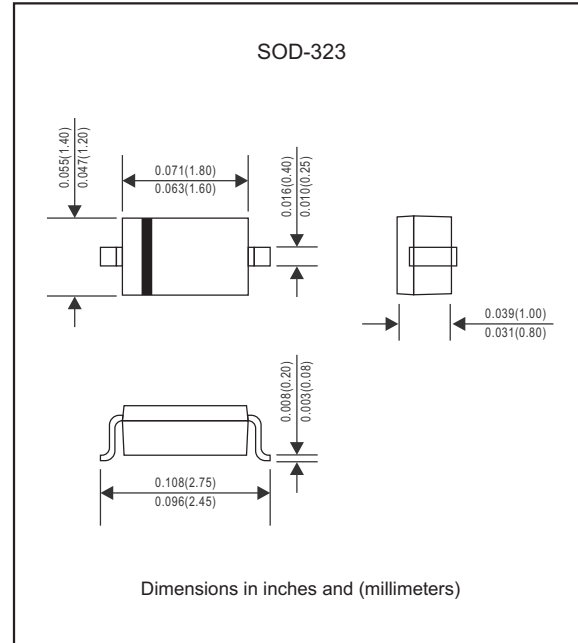
Features

- 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 requirements.
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

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

Package outline

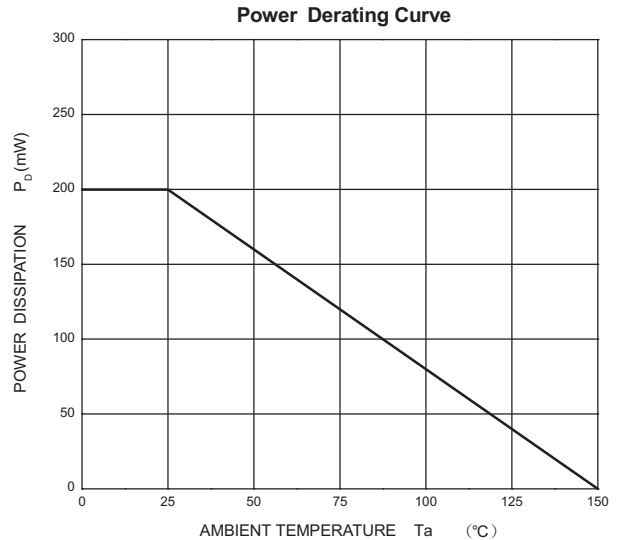
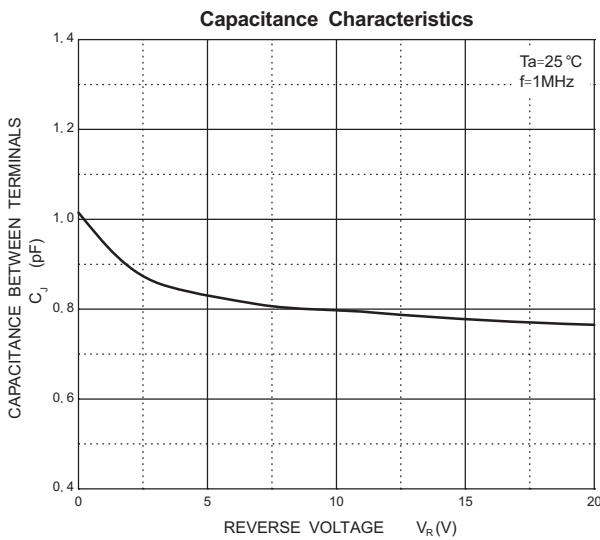
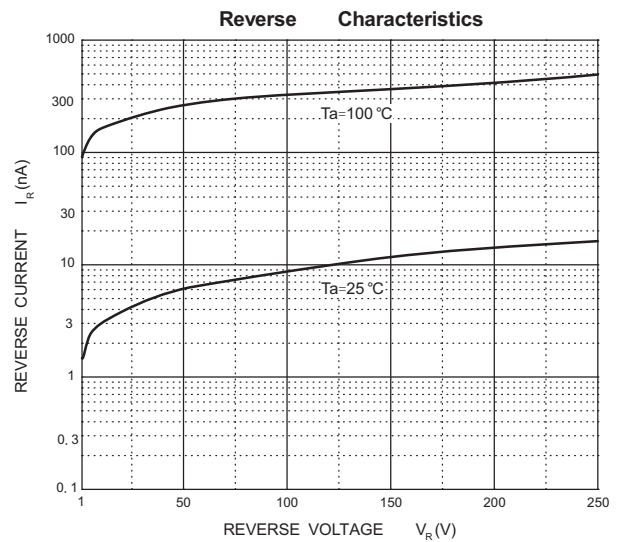
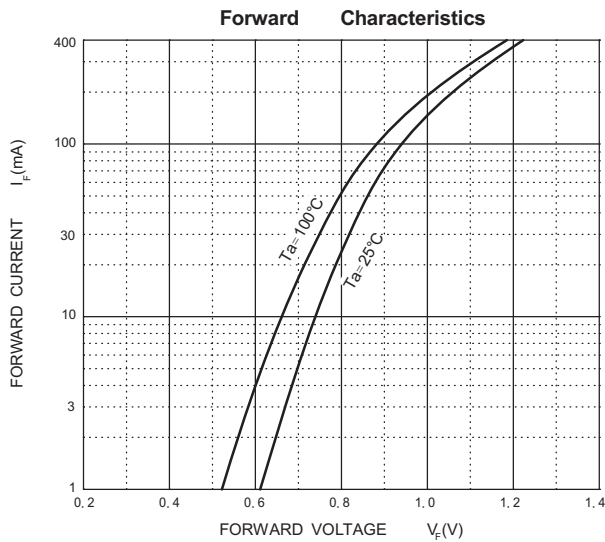


Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)



PARAMETER	CONDITIONS	Symbol	BAV19WS-Q1	BAV20WS-Q1	BAV21WS-Q1	UNIT
Non-repetitive peak reverse voltage		V_{RRM}	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			$^\circ\text{C}/\text{W}$
Operating junction temperature range		T_J	-55 ~ +150			$^\circ\text{C}$
Storage temperature range		T_{STG}	-55 ~ +150			$^\circ\text{C}$
Maximum Forward voltage	$I_F = 100 \text{ mA}$ $I_F = 200 \text{ mA}$	V_F	1.00 1.25			V
Maximum Reverse leakage current	@ Working Peak Reverse Voltage	I_R	100			nA
Maximum Total capacitance	$V_R = 0 \text{ V}$, $f = 1.0\text{MHz}$	C_J	5.0			pF
Maximum Reverse recovery time	$I_F = I_R = 30\text{mA}$, $I_{RR} = 0.1 \times I_R$, $R_L = 100_{\Omega}$	t_{rr}	50			ns

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

Rating and characteristic curves(BAV19WS-Q1 THRU BAV21WS-Q1)



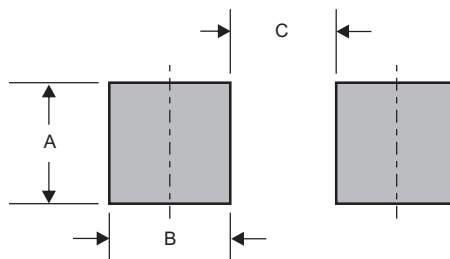
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
BAV19WS-Q1	A8
BAV20WS-Q1	T2
BAV21WS-Q1	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)