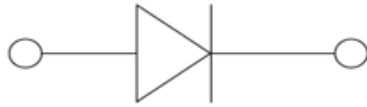


Small Signal Switching Diodes



SOD123

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_{RRM} 120V to 250V
- I_{FAV} 200mA
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- General Purpose Switches Diodes

Mechanical Data

- **Case:** SOD123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:**

	Marking
BAV19WQ	A8
BAV20WQ	T2
BAV21WQ	T3

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	PART	VALUE
Reverse Voltage	V_R	V		BAV19WQ	100
				BAV20WQ	150
				BAV21WQ	200
Repetitive Peak Reverse Voltage	V_{RRM}	V		BAV19WQ	120
				BAV20WQ	200
				BAV21WQ	250
Average Forward Current	I_{FAV}	mA			200
Non-Repetitive Peak Forward Surge Current	I_{FSM}	A	$t_p < 10\text{ms}$		1.7
Power Dissipation	P_{tot}	mW			410
Thermal Resistance Junction to Ambient	R_{thJA}	K/W			305
Maximum Junction Temperature	T_j	$^\circ\text{C}$			150
Storage Temperature Range	T_{stg}	$^\circ\text{C}$			-55 to +150



BAV19WQ THRU BAV21WQ

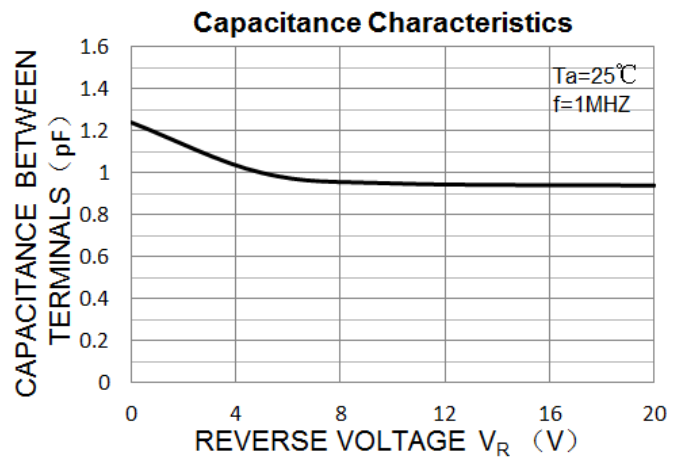
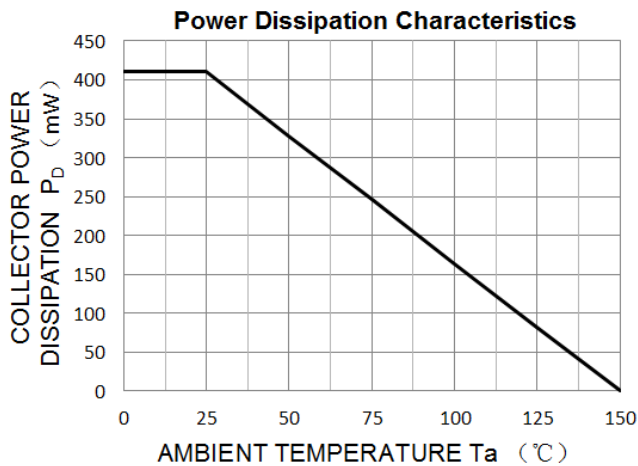
■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS		MIN	MAX
Reverse Voltage	V _R	V	BAV19WQ	I _R =100uA	100	
			BAV20WQ	I _R =100uA	150	
			BAV21WQ	I _R =100uA	200	
Forward Voltage	V _F	V	I _F =100mA			1.0
			I _F =200mA			1.25
Reverse Current	I _R	μA	BAV19WQ	V _R =100V		0.1
			BAV20WQ	V _R =150V		0.1
			BAV21WQ	V _R =200V		0.1
Diode Capacitance	C _D	pF	V _R =V _F =0V, f =1MHz			5
Reverse Recovery Time	t _{rr}	ns	I _F =30mA, I _{rr} =0.1I _R , R _L =100Ω			50

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAV19WQ THRU BAV21WQ	F2	Approximate 0.010	3000	30000	120000	7" reel

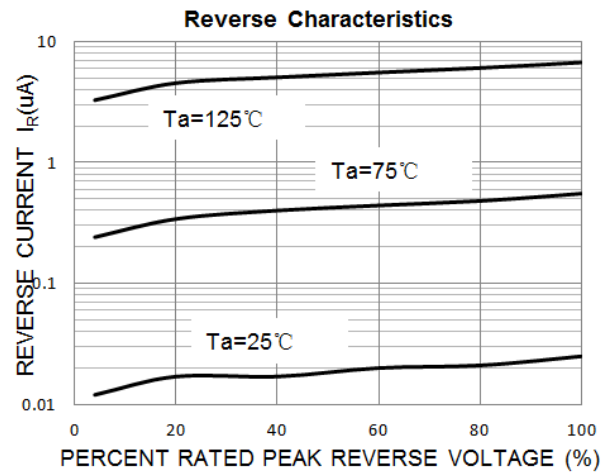
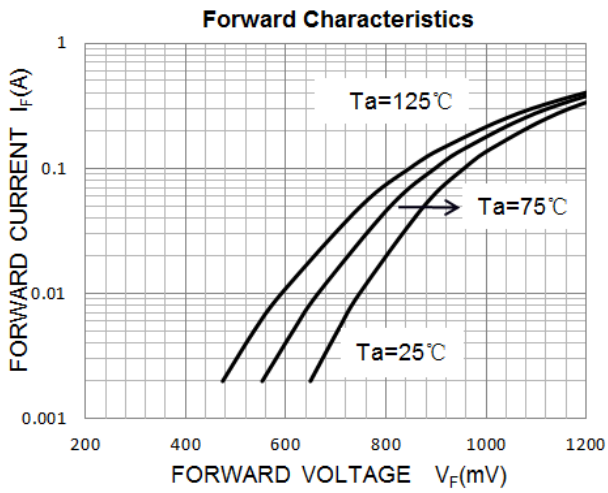
■ Characteristics (Typical)



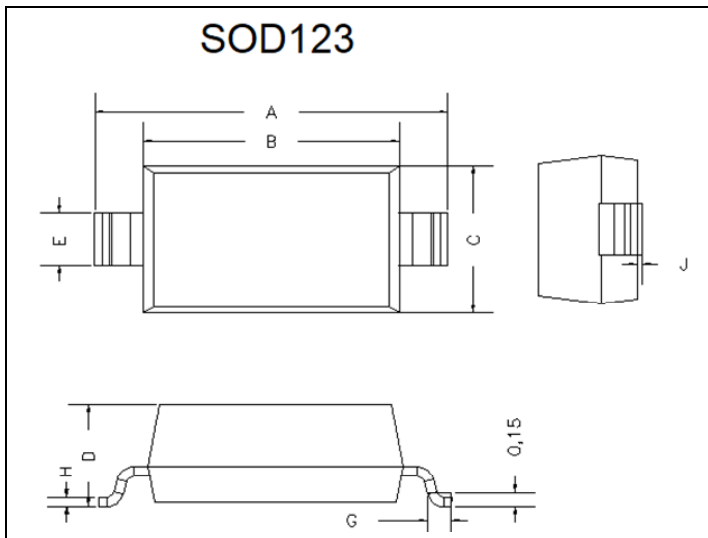


BAV19WQ THRU BAV21WQ

■ Characteristics (Typical)

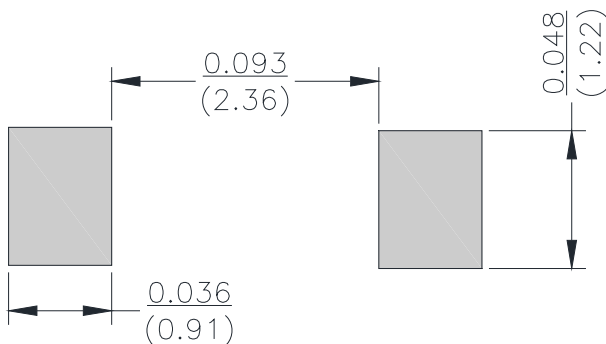


■ Outline Dimensions



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.140	0.152	3.55	3.85	
B	0.100	0.112	2.55	2.85	
C	0.055	0.071	1.40	1.80	
D	-	0.053	-	1.35	
E	0.012	0.031	0.30	0.78	
G	0.006	-	0.15	-	
H	-	0.010	-	0.25	
J	-	0.006	-	0.15	

■ Soldering Footprint



Unit: $\frac{\text{inch}}{\text{mm}}$



BAV19WQ THRU BAV21WQ

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