BAV19W THRU BAV21W

Reverse Voltage 120-250 Volts Forward Current - 0.2Ampere

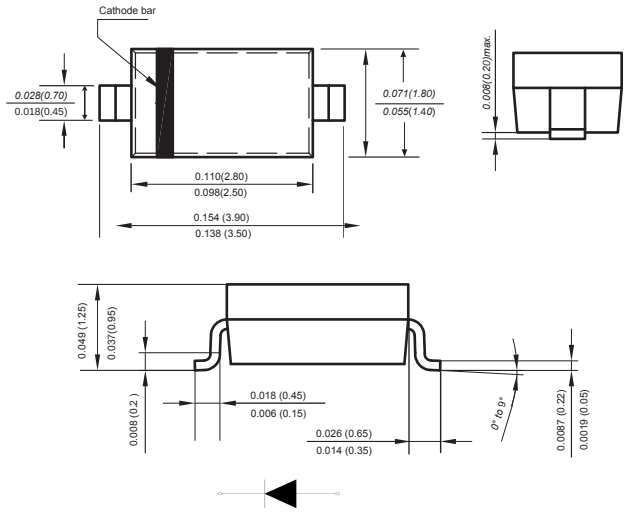
FAST SWITHING DIODES

Features

SOD-123

RoHS COMPLIANT

- Fast switching speed
- Surface mount package ideally suited
- for automatic insertion
- For general purpose switching applications High
- conductance



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC SOD-123 molded plastic body
Terminals : Plated leads solderable per MIL-STD-750, Method 2026
Polarity : Polarity symbols marked on case
Marking:BAV19W:A8, BAV20W:T2, BAV21W:T3

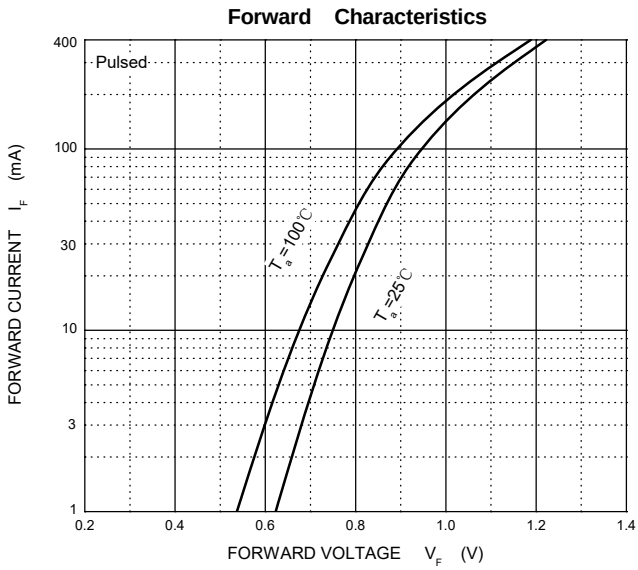
Absolute Maximum Ratings at 25 °C

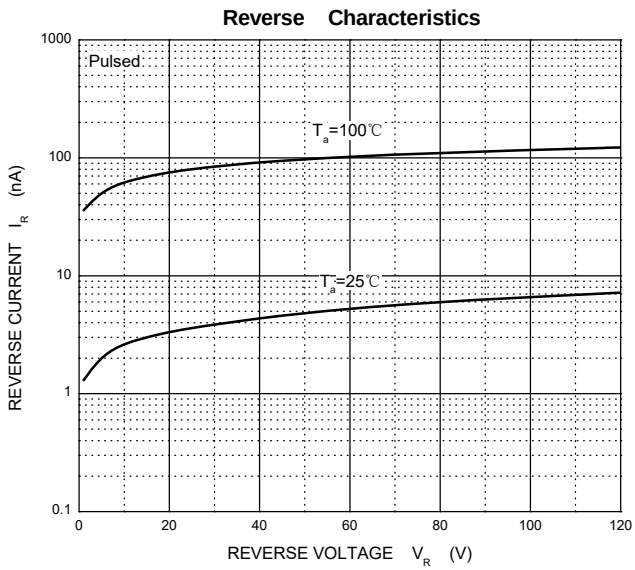
PARAMETER	SYMBOLS	BAV19W	BAV20W	BAV21W	UNITS
Non-Repetitive Peak Reverse Voltage	V_{RM}	120	200	250	V
Working Peak Reverse Voltage Peak Repetitive Reverse Voltage	V_{RWM} V_{RRM}	100	150	200	V
RMS Reverse voltage	$V_{R(RMS)}$	71	106	141	V
Forward continuous current	I_{FM}	250			mA
Average rectified output current	Io	200			mA
Peak forward surge current @=1s @=1ms @=1us	I_{FSM}	1 3 9			A
Repetitive peak forward current	I_{FRM}	625			mA
Power dissipation	Pd	500			mW
Thermal resistance junction to ambient	$R_{\Theta JA}$	500			K/W
Junction Temperature	T_j	-55 to +150			°C
Storage Temperature	T_{STG}	-55 to +150			°C
Non-Repetitive peak reverse voltage	V_{RM}	120	200	250	V

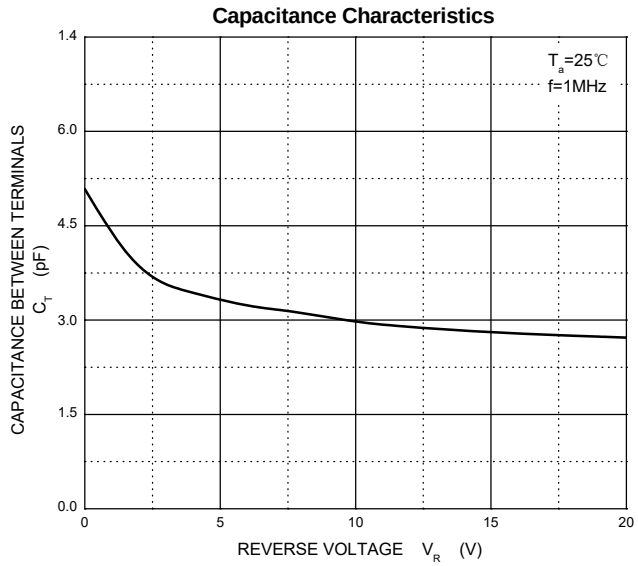
Characteristics at Ta= 25 °C

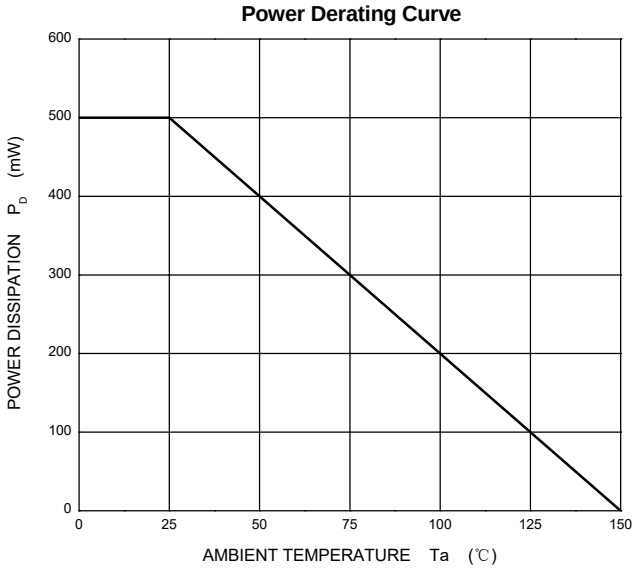
PARAMETER		SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Forward voltage		V_{F1}			1.0	V	I_F=0.1A
		V_{F2}			1.25	V	I_F=0.2A
Reverse current	BAV19W	I_R			0.1	uA	V_R=100V
	BAV20W				0.1	uA	V_R=150V
	BAV21W				0.1	uA	V_R=200V
Capacitance between terminals		C_T			5	pF	V_R=0V,f=1.0MHz
Reverse recovery time		t_{rr}			50	ns	I_F=I_R=10mA Irr=0.1XI_R,R_L=100Ω

Typical Characterisitics



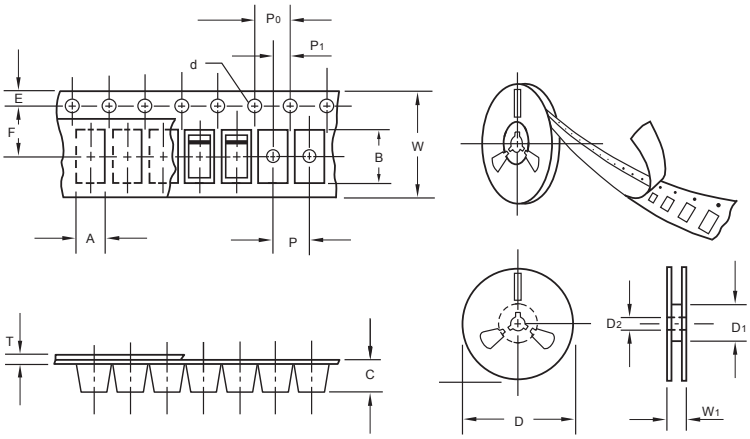






The curve above is for reference only.

Packing information



unit:mm

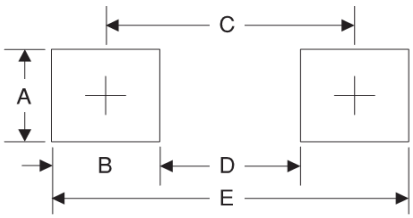
Item	Symbol	Tolerance	SOD-123
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D_1	min	50.0
Feed hole diameter	D_2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P_0	0.1	4.00
Embossment center	P_1	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	8.15
Reel width	W_1	1.0	10.5

Note:Devices are packed in accor dance with EIA standar RS-481-A and specifications listed above.

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-123	7"	3,000	4.0	45,000	190*190*190	178	400*400*220	180,000	9.0

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.047
B	1.2	0.047
C	3.2	0.126
D	2.0	0.079
E	4.4	0.173

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