Formosa MS

BAV19W THRU BAV21W

200mA Surface Mount Switching Diode-120V-250V

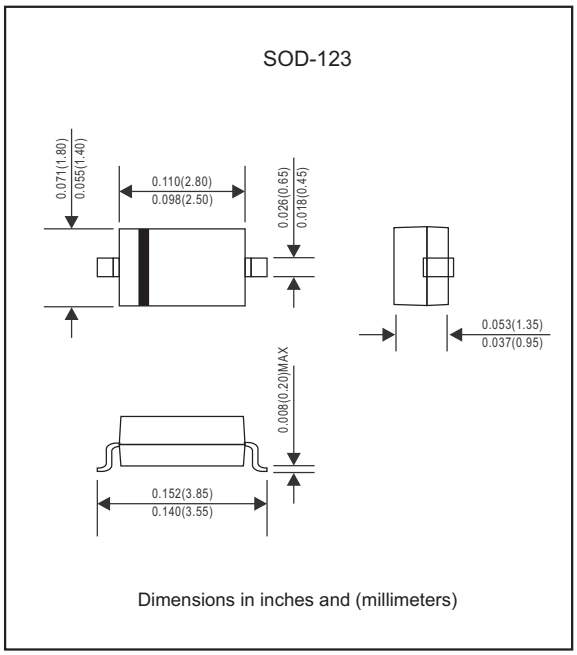
Features

- Fast speed switching.
- For general purpose switching application.
- High conductance.
- Silicon epitaxial planar chip
- Lead-free parts meet RoHS requirments.
- Compliant to Halogen-free

Mechanical data

- Epoxy:UL94-VO rated flame retardant
- Case : Molded plastic, SOD-123
- 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°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	BAV19W	BAV20W	BAV21W	UNIT
Non-repetitive peak reverse voltage		V_{RM}	120	200	250	V
Peak repetitive reverse voltage Working peak reverse voltage DC blocking voltage		V_{RRM} V_{RWM} V_R	100	150	200	V
Forward Continous Current (1)		I_{FM}	400			mA
Average rectified output current(1)		I_O	200			mA
Non-repetitive peak forward surge current	@t = 1.0 ms @t = 1.0 s	I_{FSM}	2.5 0.5			A
Power dissipation		P_D	250			mW
Typical Thermal resistance	Junction to ambient air(1)	$R_{\theta JA}$	500			°C/W
Operating temperature		T_J	-55 ~ +150			°C
Storage temperature		T_{STG}	-65 ~ +150			°C
Maximum Forward voltage	I_F = 100 mA I_F = 200 mA	V_F	1.0 1.25			V
Maximum Reverse leakage	@rated DC blocking voltage, T_J=25°C T_J=100°C	I_R	100 15			nA uA
Maximum Total capacitance	V_R = 1.0 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(BAV19W THRU BAV21W)

FIG.1-POWER DERATING CURVE

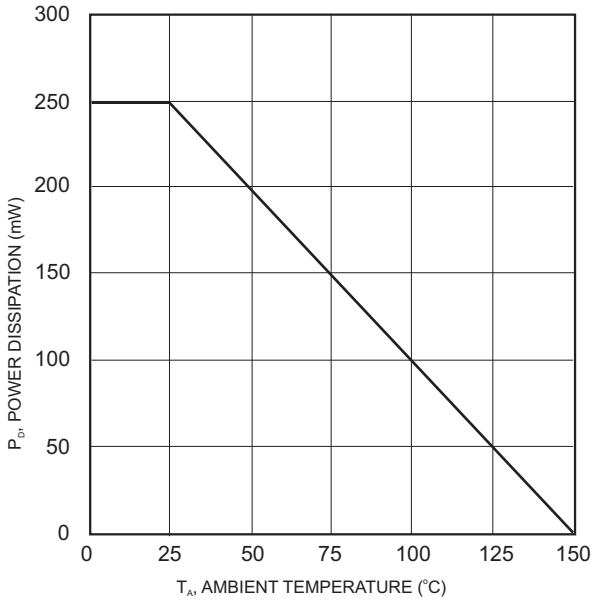


FIG.2-TYPICAL CAPACITANCE VS. REVERSE VOLTAGE

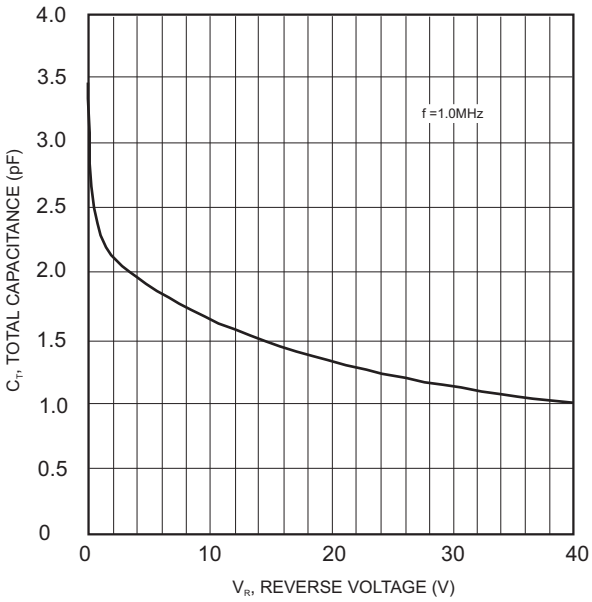


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

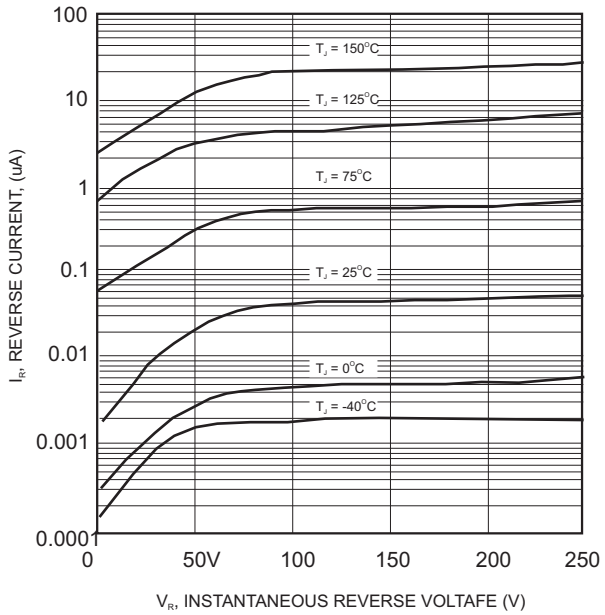
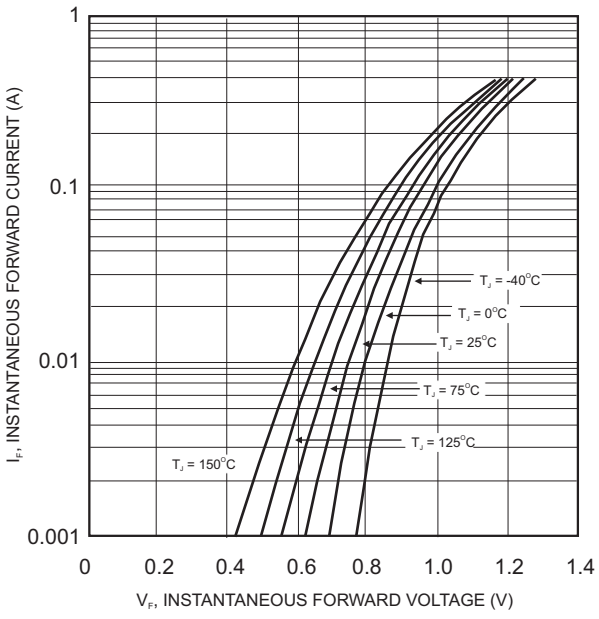


FIG.4-TYPICAL FORWARD CHARACTERISTICS



BAV19W THRU BAV21W

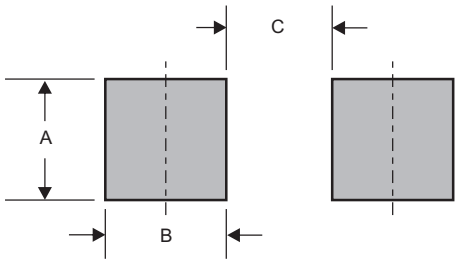
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
BAV19W	A8
BAV20W	T2
BAV21W	T3

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-123	0.059 (1.50)	0.059 (1.50)	0.094 (2.40)

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	30,000	183*183*123	178	382*262*387	240,000	9.5