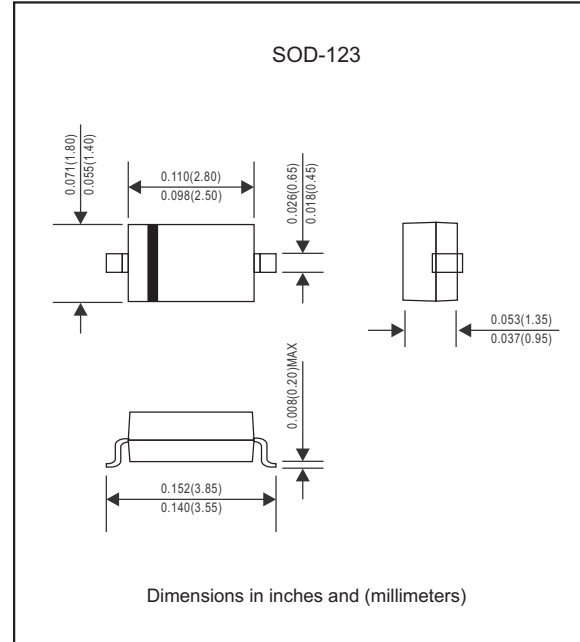


Features

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

Package outline



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

Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ 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		V_{RRM}	100	150	200	V
Working peak reverse voltage		V_{RWM}				
DC blocking voltage		V_R				
Forward Continuous 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			$^{\circ}\text{C}/\text{W}$
Operating temperature		T_J	-55 ~ +150			$^{\circ}\text{C}$
Storage temperature		T_{STG}	-65 ~ +150			$^{\circ}\text{C}$
Maximum Forward voltage	$I_F = 100\text{ mA}$ $I_F = 200\text{ mA}$	V_F	1.0 1.25			V
Maximum Reverse leakage	@rated DC blocking voltage, $T_J=25^{\circ}\text{C}$ $T_J=100^{\circ}\text{C}$	I_R	100 15			nA uA
Maximum Total capacitance	$V_R = 1.0\text{ V}$, $f = 1.0\text{ MHz}$	C_J	5.0			pF
Maximum Reverse recovery time	$I_F = I_R = 30\text{ mA}$, $I_{RR} = 0.1 \times I_R$, $R_L = 100_{\text{OHM}}$	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

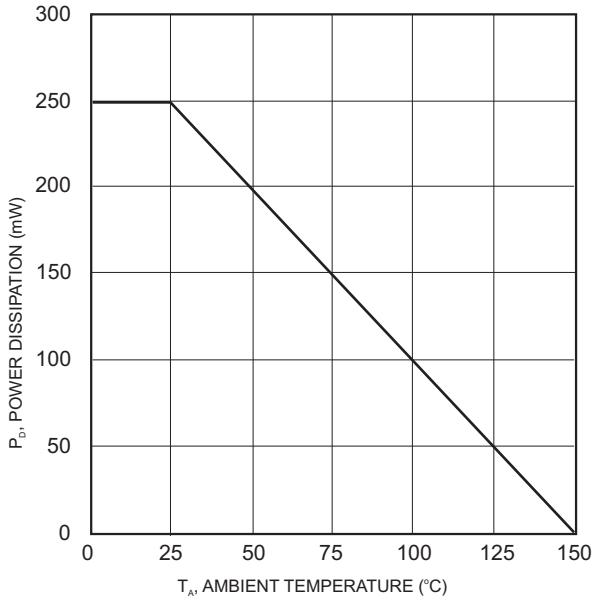


FIG.2-TYPICAL CAPACITANCE VS. REVERSE VOLTAGE

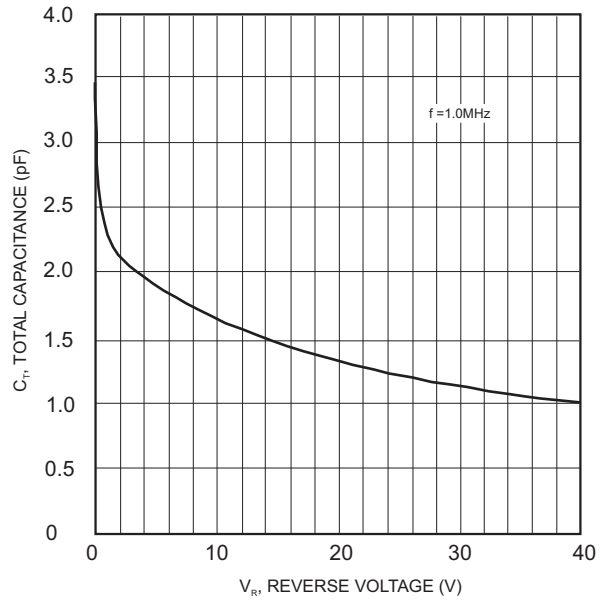


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

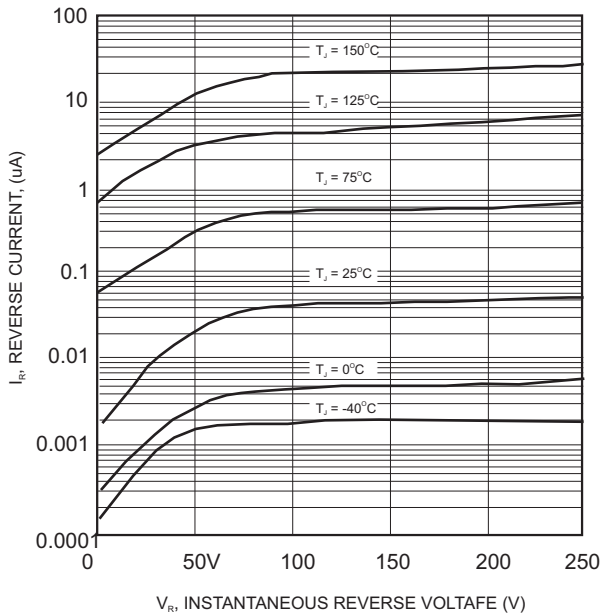
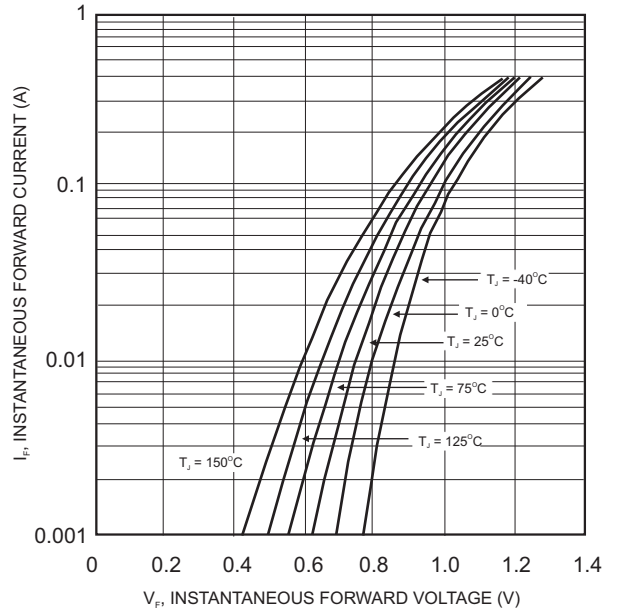




FIG.4-TYPICAL FORWARD CHARACTERISTICS



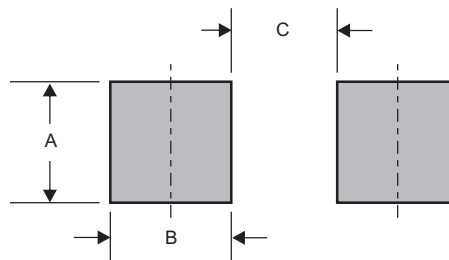
Pinning information

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)