

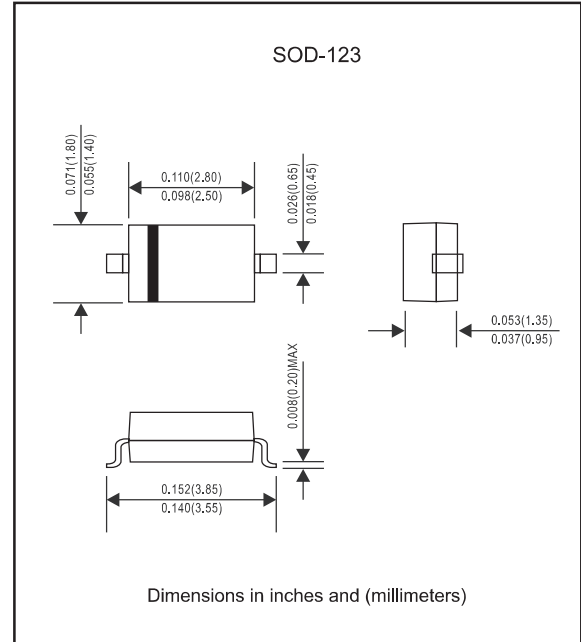
Features

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

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 $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	BAS21HT1G	UNIT
Non-repetitive peak reverse voltage		V_{RM}	250	V
Peak repetitive reverse voltage		V_{RRM}	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

FIG.1-POWER DERATING CURVE

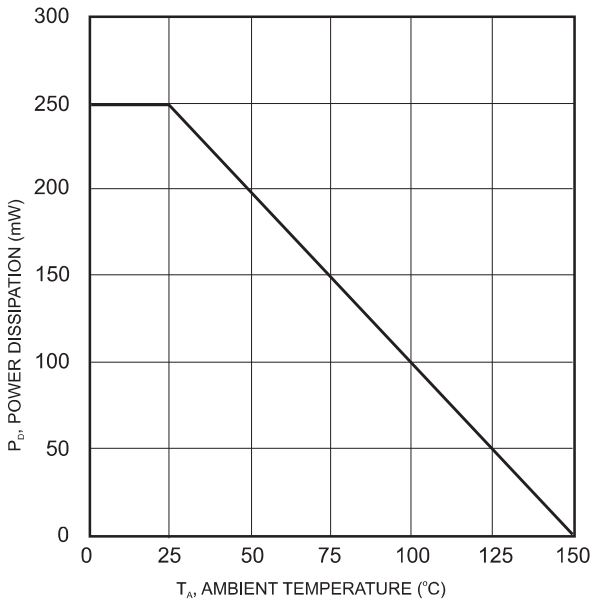


FIG.2-TYPICAL CAPACITANCE VS. REVERSE VOLTAGE

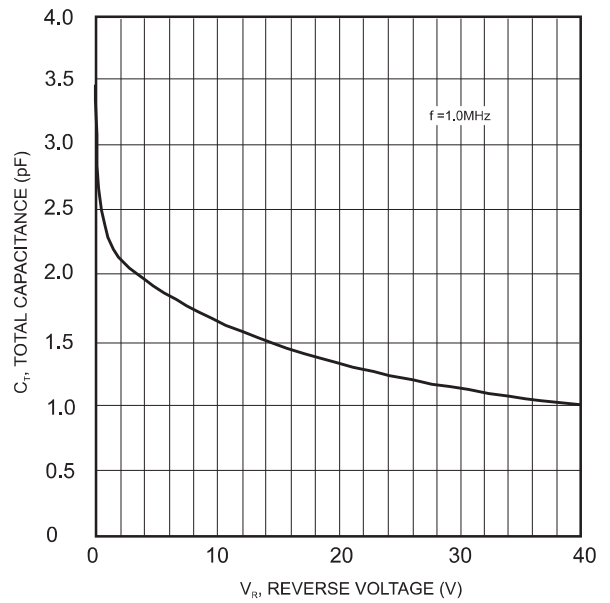


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

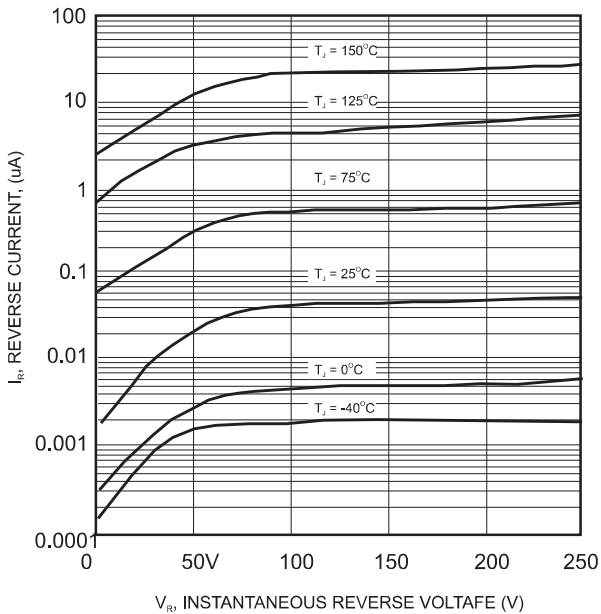
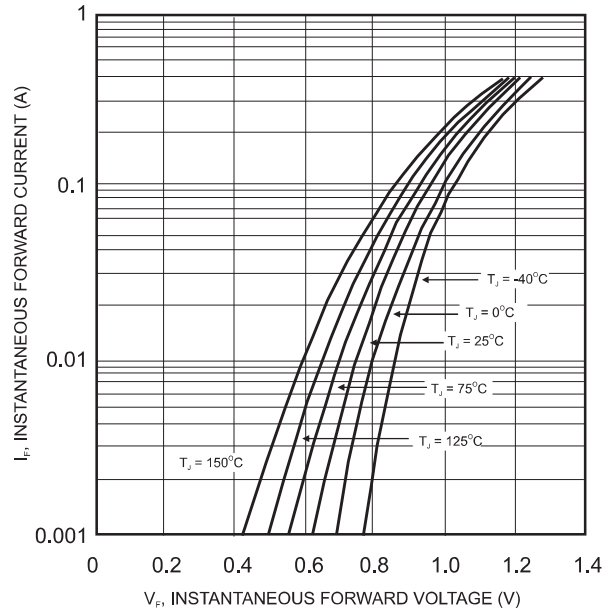




FIG.4-TYPICAL FORWARD CHARACTERISTICS



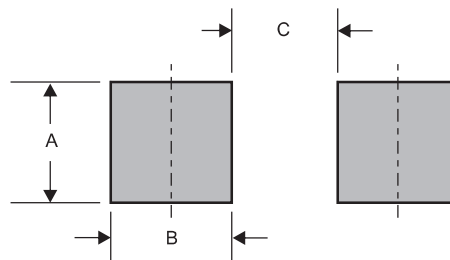
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
BAS21HT1G	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)