



BAS121/A/C/S

SURFACE MOUNT HIGH VOLTAGE, LOW LEAKAGE SWITCHING DIODE

VOLTAGE	250 Volts	POWER	250 mW	SOT-23	Unit: inch (mm)
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FEATURES

- High Reverse Blocking Voltage
- Extremely Low Reverse Leakage Current
- Surface Mount Package Ideally Suited for Automatic Insertion
- In compliance with EU RoHS 2002/95/EC directives

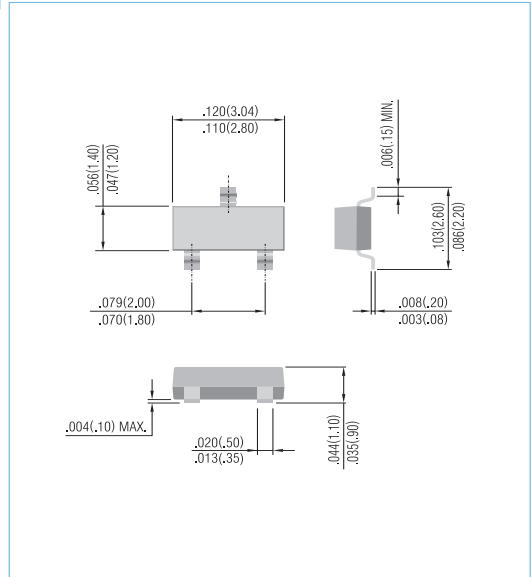
MECHANICAL DATA

Case : SOT-23, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Approx weight : 0.008 gram

Marking : P8



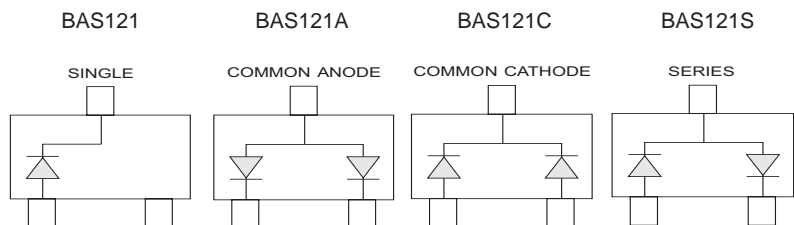
ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNITS
Reverse Voltage	V_R	250	V
Peak Reverse Voltage	V_{RRM}	250	V
Continuous Forward Current	I_F	0.2	A
Non-repetitive Peak Forward Surge Current at $t=1.0 \mu s$	I_{FSM}	4.0	A
Power Dissipation ⁽¹⁾	P_{TOT}	250	mW
Junction and Storage Temperature	T_J, T_{STG}	-55 to 150	°C

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNITS
Thermal Resistance , Junction to Ambient ⁽¹⁾	$R_{\theta JA}$	500	°C/W

Note 1. FR-5 Board = 1.0 x 0.75 x 0.062 in





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ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$, unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	250	-	-	V
Forward Voltage	V_F	$I_F=1\text{mA}$ $I_F=100\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$	-	-	0.90 1.00 1.10 1.25	V
Reverse Current at Rated V_R	I_R	$T_J=25^{\circ}\text{C}$ $T_J=150^{\circ}\text{C}$	-	-	0.005 10	μA
Total Capacitance	C_T	$f=1.0\text{MHz}$; $V_R=0\text{V}$	-	-	5.0	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=30\text{mA}$, $I_{rr}=3\text{mA}$, $R_L=100\Omega$	-	-	3000	ns

ELECTRICAL CHARACTERISTICS CURVE

ELECTRICAL CHARACTERISTICS CURVES

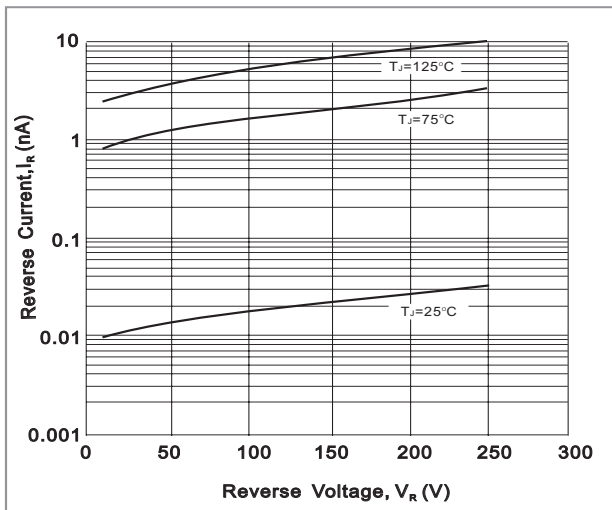


FIG. 1-REVERSE CHARACTERISTICS

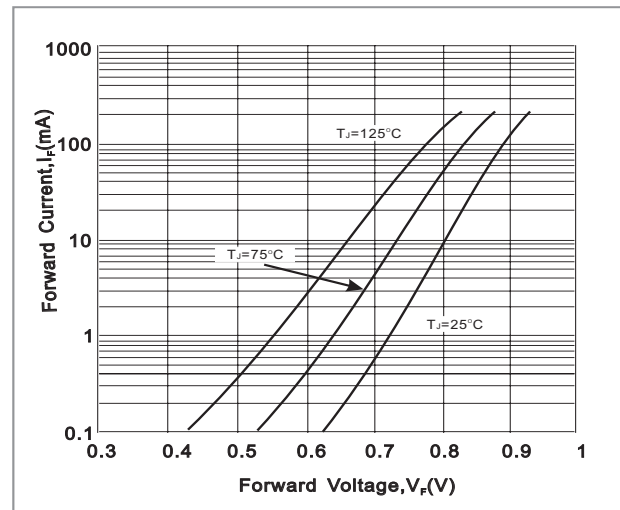


FIG. 2-FORWARD CHARACTERISTICS

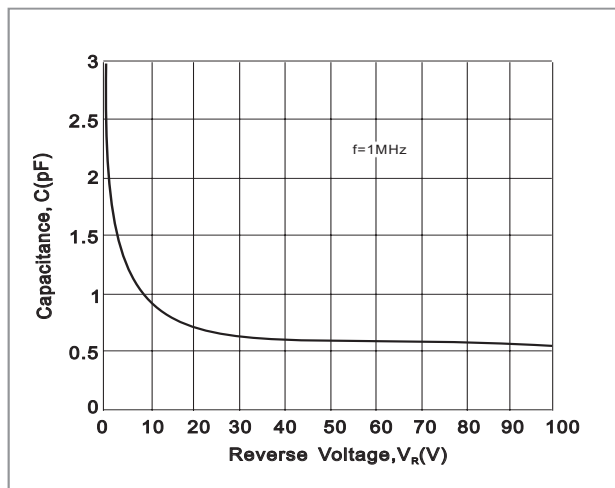
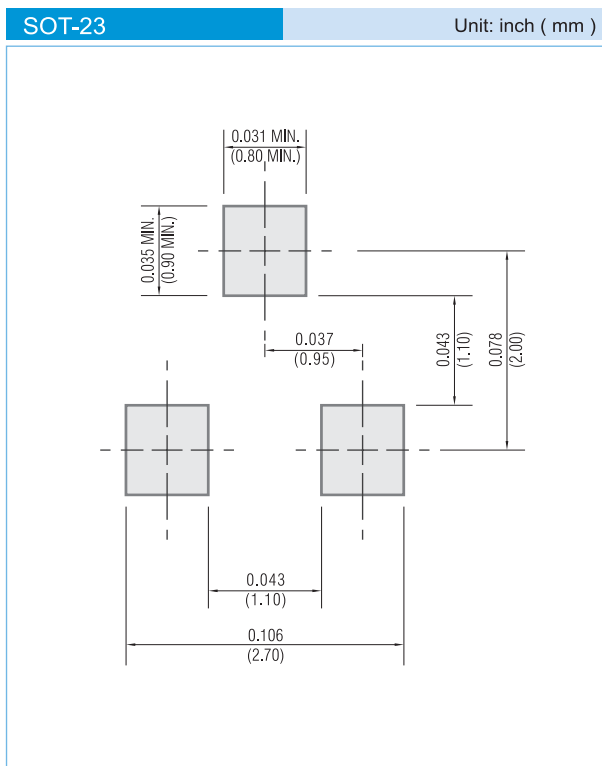


FIG. 3-CAPACITANCE



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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