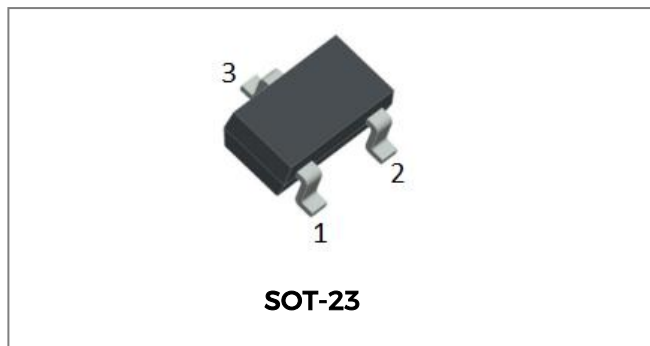


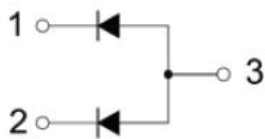
BAW56 SURFACE MOUNT FAST SWITCHING DIODE



Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose and Switching Application
- Plastic Material -UL Recognition Flammability Classification 94V-O
- "-A" is an AEC-Q101 qualified device
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration



Mechanical Characteristics

- Case: SOT-23, Molded Plastic
- Terminals: Plated leads Solderable per MIL-STD-202, Method 208
- Mounting Position: Any
- Weight: 0.008g

Maximum Ratings@T_A=25°C unless otherwise specified

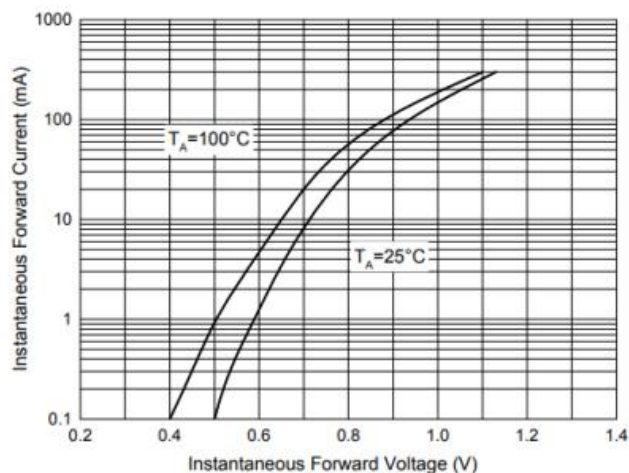
Characteristic	Symbol	Value	Units
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Peak Repetitive Reverse Voltage	V _{RRM}	75	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
Forward Continuous Current	I _{FM}	250	mA
Peak Forward Surge Current @t=1.0S	I _{FSM}	1	A
Power Dissipation	P _D	350	mW
Thermal Resistance, Junction to Ambient	R _{θJA}	357	°C/W
Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

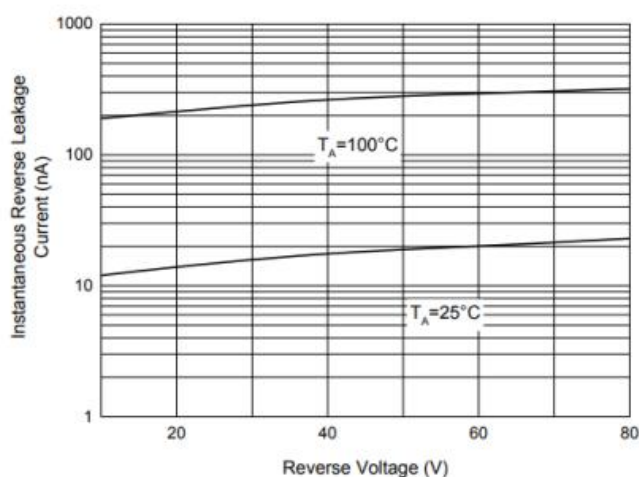
Characteristic	Symbol	Min	Max	Units	Test Condition
Forward Voltage*	V_F	-	0.855 1.0	V	@ $I_F=10\text{mA}$ @ $I_F=50\text{mA}$
Reverse Leakage Current*	I_R	-	2.5 50	μA	@ $V_R=75\text{V}$ @ $V_R=75\text{V}$, $T_J=150^\circ\text{C}$
Diode Capacitance	C_T	-	2	pF	$V_R=0\text{V}$, $f=1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-	4	ns	$I_F=I_R=10\text{mA}$, $I_{RR}=0.1 \times I_R$, $R_L=100\Omega$

* Pulse width < 300 μs , duty cycle < 2%

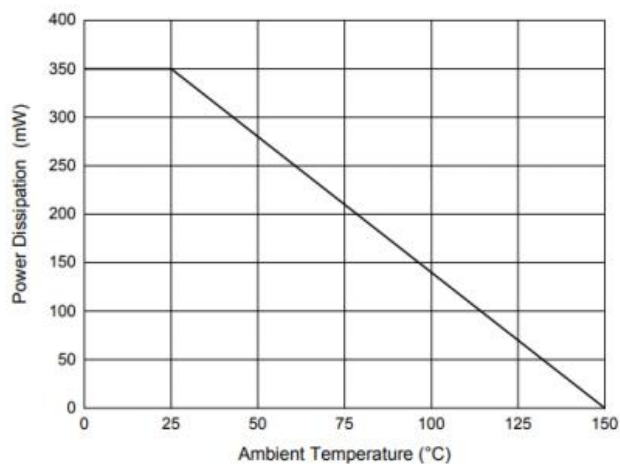
Ratings and Characteristics Curves



Typical Instantaneous Forward Characteristics

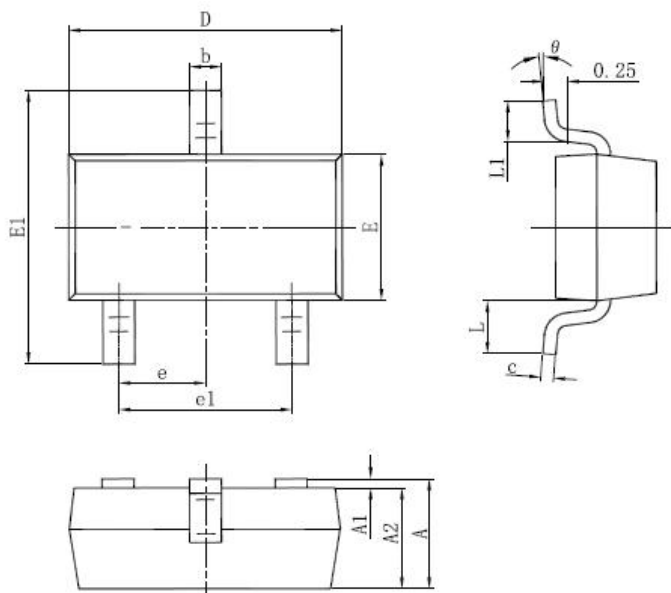


Typical Reverse Leakage Characteristics



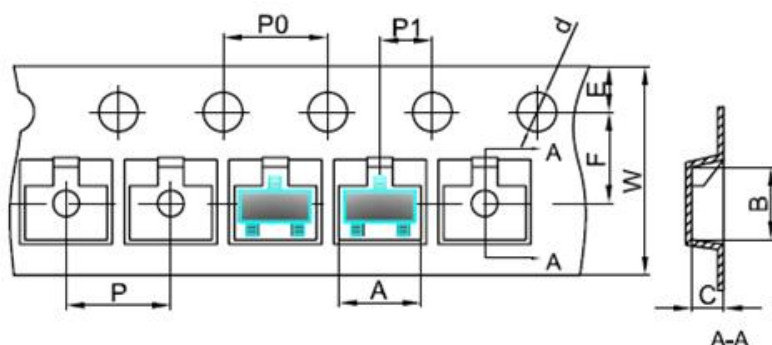
Power Derating Curve

Mechanical Dimensions SOT-23



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	0.890	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.076	0.170	0.003	0.007
D	2.650	3.050	0.104	0.120
E	1.190	1.400	0.047	0.055
E1	2.100	2.550	0.083	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.780	2.050	0.070	0.081
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Carrier Tape Specification SOT-23



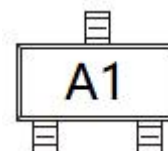
SYMBOL	Millimeters	
	Min.	Max.
A	3.05	3.25
B	2.67	2.87
C	1.12	1.32
d	1.40	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

Ordering Information

Device	Package	Shipping
BAW56	SOT-23	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel Packaging specification.

Marking Diagram



A1 = Marking Code

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