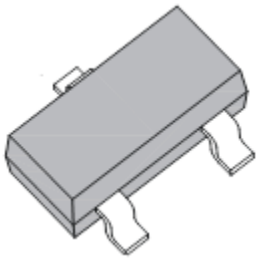
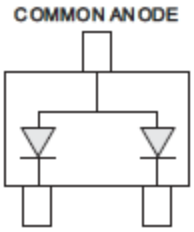
Three Terminals SMD Switching Diode

Features

- Silicon Epitaxial Planar Diode
- Surface mount package ideally suited for automatic insertion
- Electrically identical to Standard JEDEC
- High Conductance
- RoHS Compliant



SOT-23



Mechanical Data

Case:	SOT-23, Plastic Package
Terminals:	Solderable per MIL-STD-750, Method 2026
Weight:	Approx. Weight: 0.0003 ounces, 0.0084 gram

Maximum Ratings* *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	BAW56	Unit	Conditions
	Marking Code	JC		
V_{RRM}	Peak Reverse Voltage	100	V	
I_O	Rectified Current (average).	150	mA	Half Wave Rectification with Resistive Load, f≥50Hz
I_{FSM}	Peak Forward Surge Current	4.0	A	t=0.001ms
P_D	Power Dissipation	250	mW	Derate above 25 °C
R_{thJA}	Typical Thermal Resistance	360	°C/W	
R_{thJC}		205	°C/W	
T_J	Operating Junction Temperature	-55 to +150	°C	

Electrical Characteristics *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	Min.	Max.	Unit	Conditions
V_R	Reverse Voltage	75	-	V	
V_F	Maximum Forward Voltage	-	0.715	V	I_F=1.0mA
			0.855		I_F=10mA
			1.00		I_F=50mA
			1.25		I_F=150mA
I_R	Maximum Reverse Current	-	0.03	μA	V_R=25V
			2.5		V_R=75V
C_J	Maximum Junction Capacitance	-	1.5	pF	V_R=0V, f=1MHz
T_{rr}	Reverse Recovery Time	-	4.0	ns	I_F=10mA, I_R=1mA, R_L=100Ω,V_R=6V

Typical Characteristics Curves

Fig.1 Typical Forward Characteristic

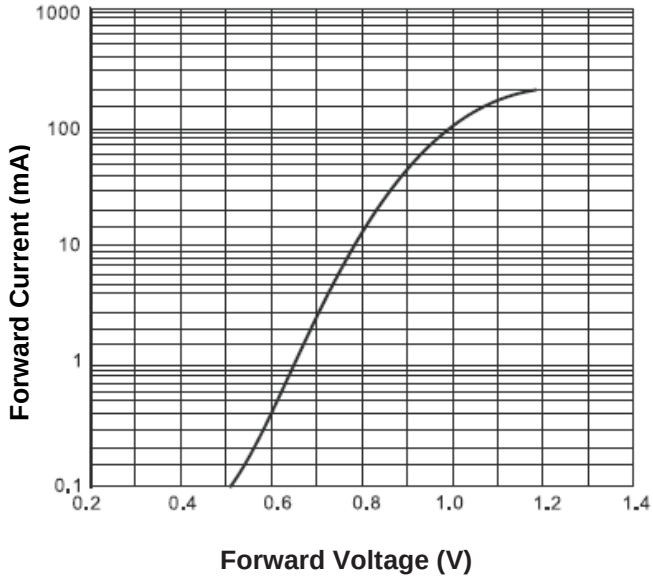


Fig.2 Typical Reverse Characteristics

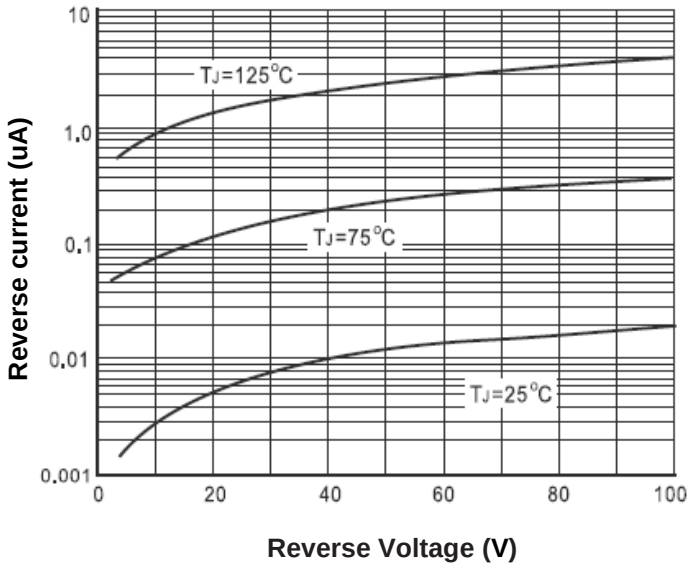


Fig.3 Typical Junction Capacitance

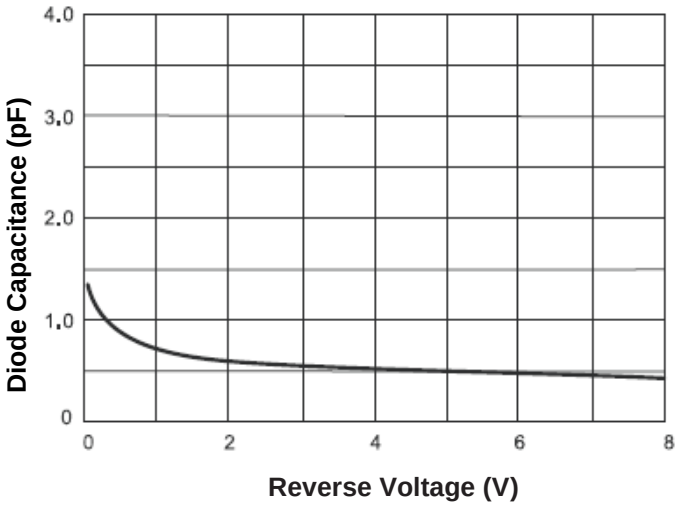
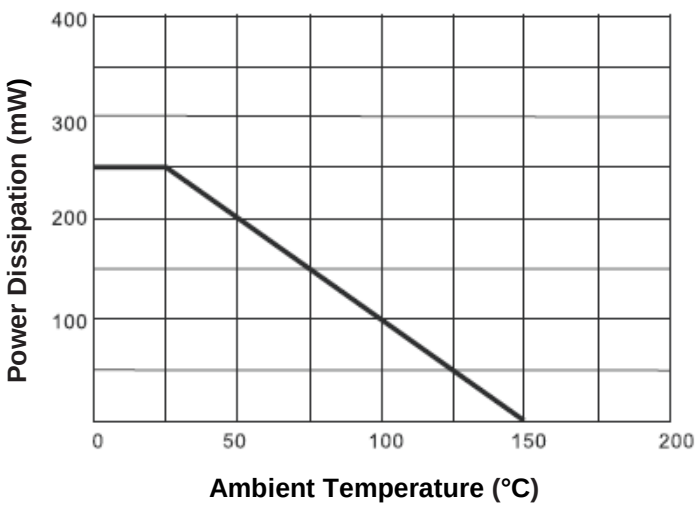
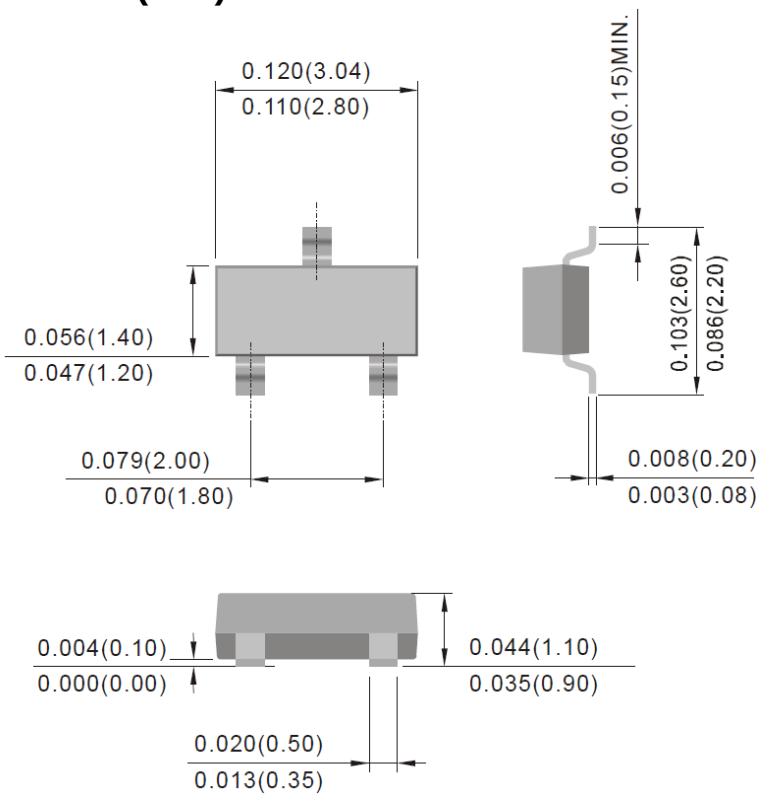


Fig.4 Power Derating Curve

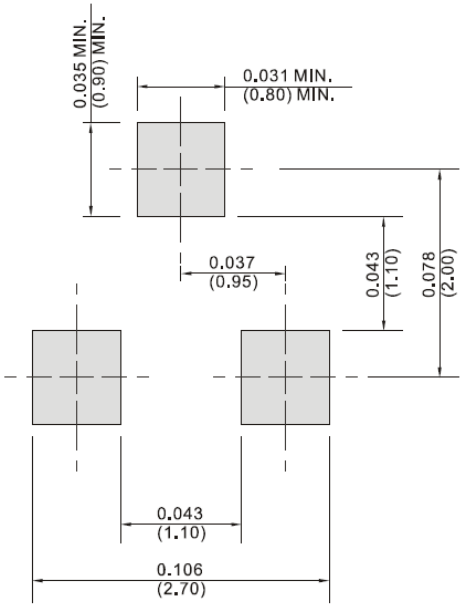


Dimensions in inch (mm)



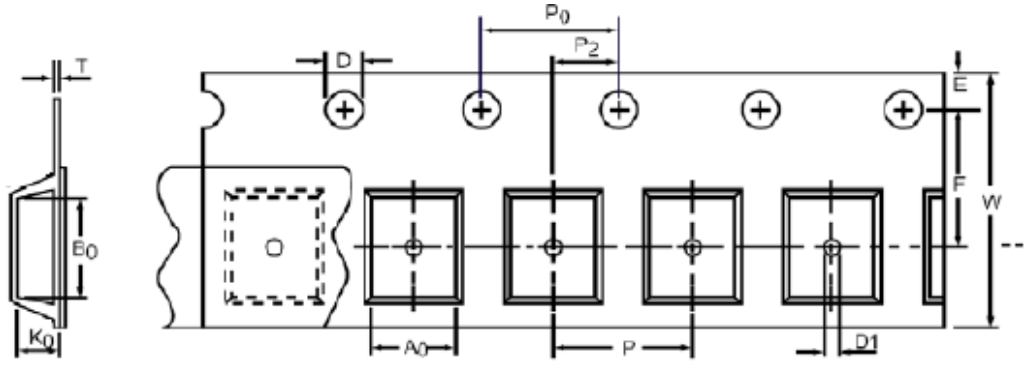
SOT-23

Mounting Pad Layout in inch (mm)



Packing Information:

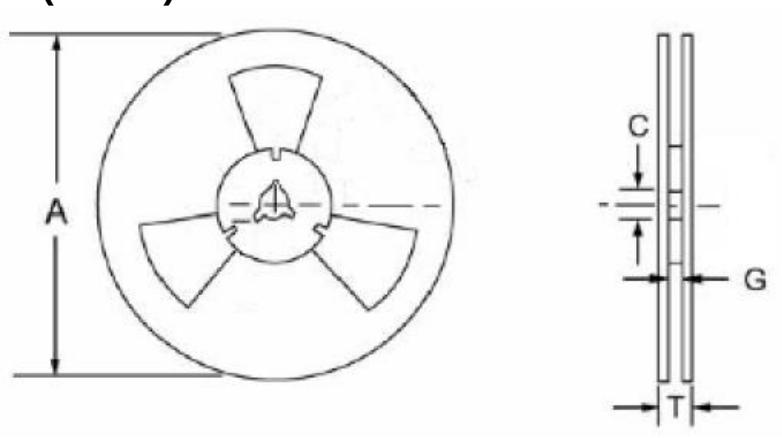
Carrier Tape Dimensions (in mm)



Product Type	A0	B0	K0	D	P0	P
	See Note			1.55±0.5	4.0±0.1	4.0±0.1
SOT-23	W	E	T	D1	F	P2
	8.0+0.3/-0.1	1.75±0.1	0.38±0.1	1.0±0.05	3.5±0.5	2.0±0.05

Note: Symbol A0, B0, K0 are determined by the maximum dimensions of the component size. The clearance between the component and the cavity must be within 0.05 mm (0.002'') min. to 0.50 mm (0.02'') max. for 8 mm tape.

Reel Dimensions (in mm)



A	C	G	T
178.0±2.0	13.0±0.5	8.4±2.0	14.4 max.

Packing Quantity Information:

Quantity	PCS per Reel	PCS per Inner Box	PCS per Inner Carton
TR70 Tape & Reel	3,000	30,000	240,000

Carton Size Information:

Cartoon Size
390x270x400 (in mm)

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