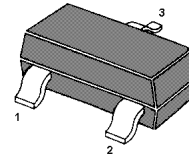
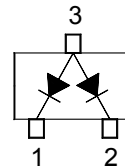


BAW56 Silicon Epitaxial Planar Switching Diode

Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance



Marking Code: A1
SOT-23 Plastic Package

Applications

- Ultra high speed switching application

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	75	V
Forward Current (DC)	I_F	215	mA
Single Diode Loaded		125	
Double Diode Loaded			
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	0.5	A
at $t = 1\text{ s}$		1	
at $t = 1\text{ ms}$		4	
at $t = 1\text{ }\mu\text{s}$			
Power Dissipation	P_{tot}	350	mW
Operating Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage	V_F	715	mV
at $I_F = 1\text{ mA}$		855	mV
at $I_F = 10\text{ mA}$		1	V
at $I_F = 50\text{ mA}$		1.25	V
Reverse Current	I_R	30	nA
at $V_R = 25\text{ V}$		1	μA
at $V_R = 75\text{ V}$		30	μA
at $V_R = 25\text{ V}, T_J = 150\text{ }^\circ\text{C}$		50	μA
at $V_R = 75\text{ V}, T_J = 150\text{ }^\circ\text{C}$			
Diode Capacitance	C_d	2	pF
at $V_R = 0, f = 1\text{ MHz}$			
Reverse Recovery Time	t_{rr}	4	ns
at $I_F = I_R = 10\text{ mA}, R_L = 100\text{ }\Omega$			

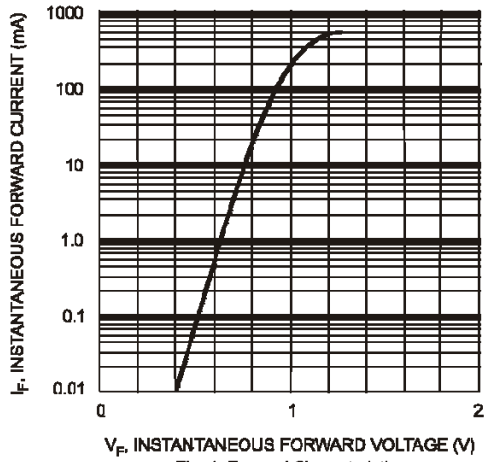


Fig. 1 Forward Characteristics

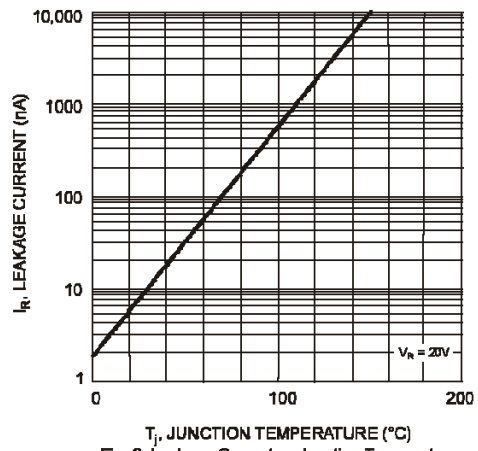


Fig. 2 Leakage Current vs Junction Temperature

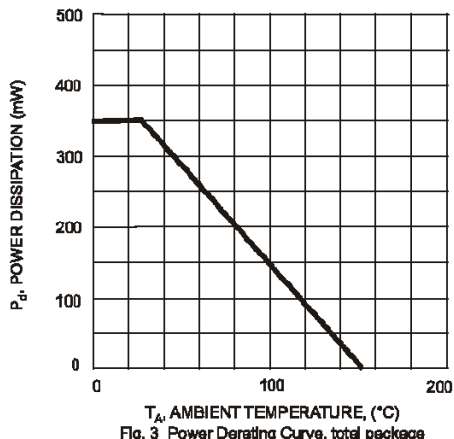


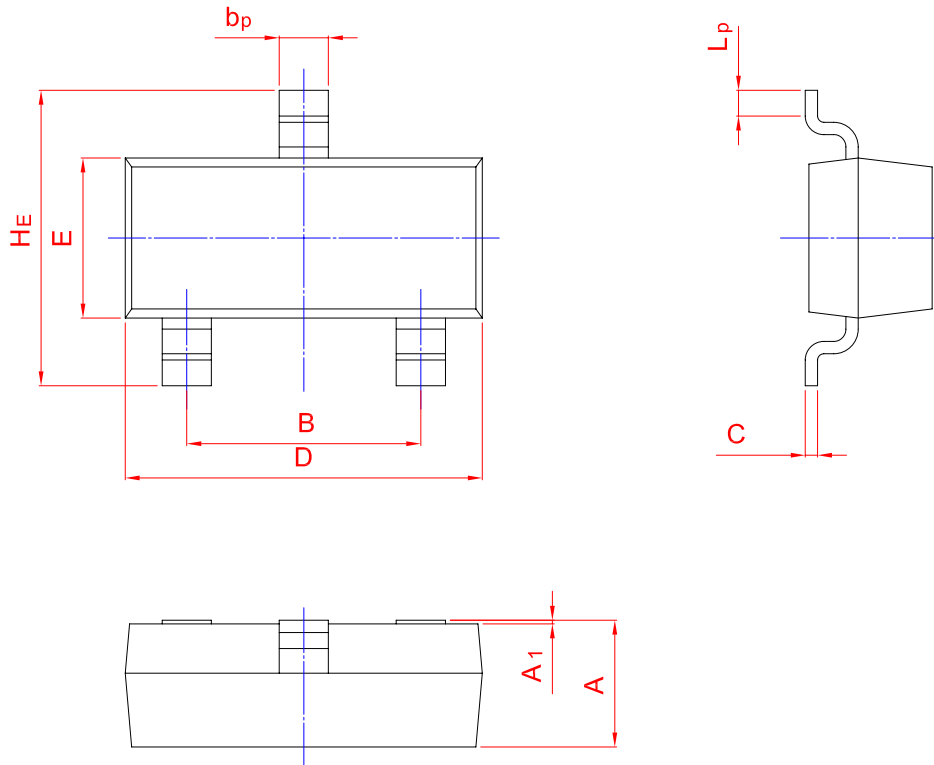
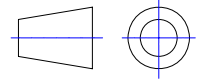
Fig. 3 Power Derating Curve, total package



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	Hε	A1	Lp
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20