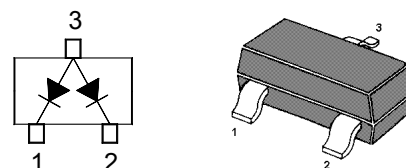


## BAW56 Silicon Epitaxial Planar Switching Diode

### 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	
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	
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 $I_F = 1\text{ mA}$		
		at $I_F = 10\text{ mA}$	855	mV
		at $I_F = 50\text{ mA}$	1	V
at $I_F = 150\text{ mA}$	$V_F$	1.25	V	
Reverse Current	$I_R$	30	nA	
		at $V_R = 25\text{ V}$		
		at $V_R = 75\text{ V}$	1	$\mu\text{A}$
		at $V_R = 25\text{ V}, T_J = 150\text{ }^\circ\text{C}$	30	$\mu\text{A}$
at $V_R = 75\text{ V}, T_J = 150\text{ }^\circ\text{C}$	$I_R$	50	$\mu\text{A}$	
Diode Capacitance	$C_d$	2	pF	
Reverse Recovery Time	$t_{rr}$	4	ns	
at $I_F = I_R = 10\text{ mA}, R_L = 100\ \Omega$				

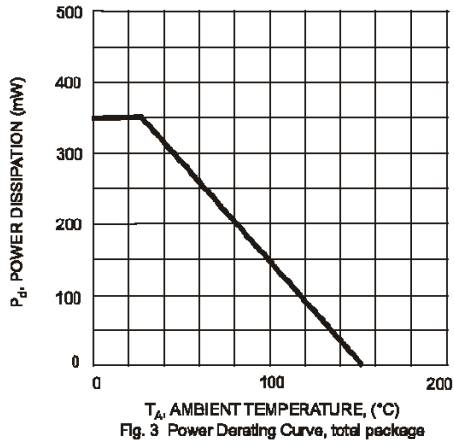
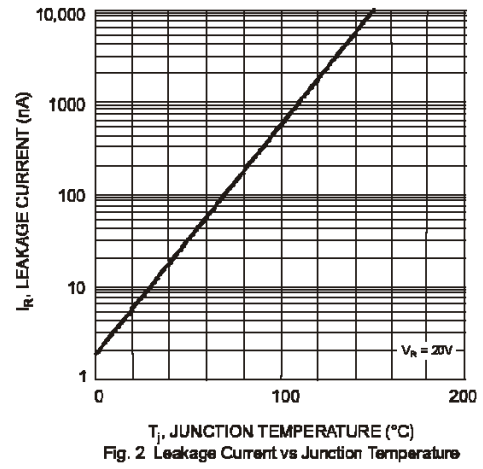
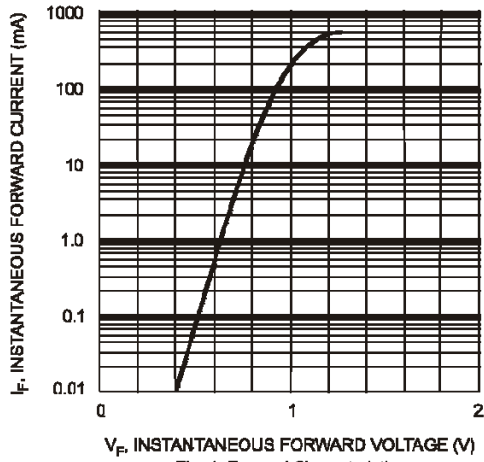
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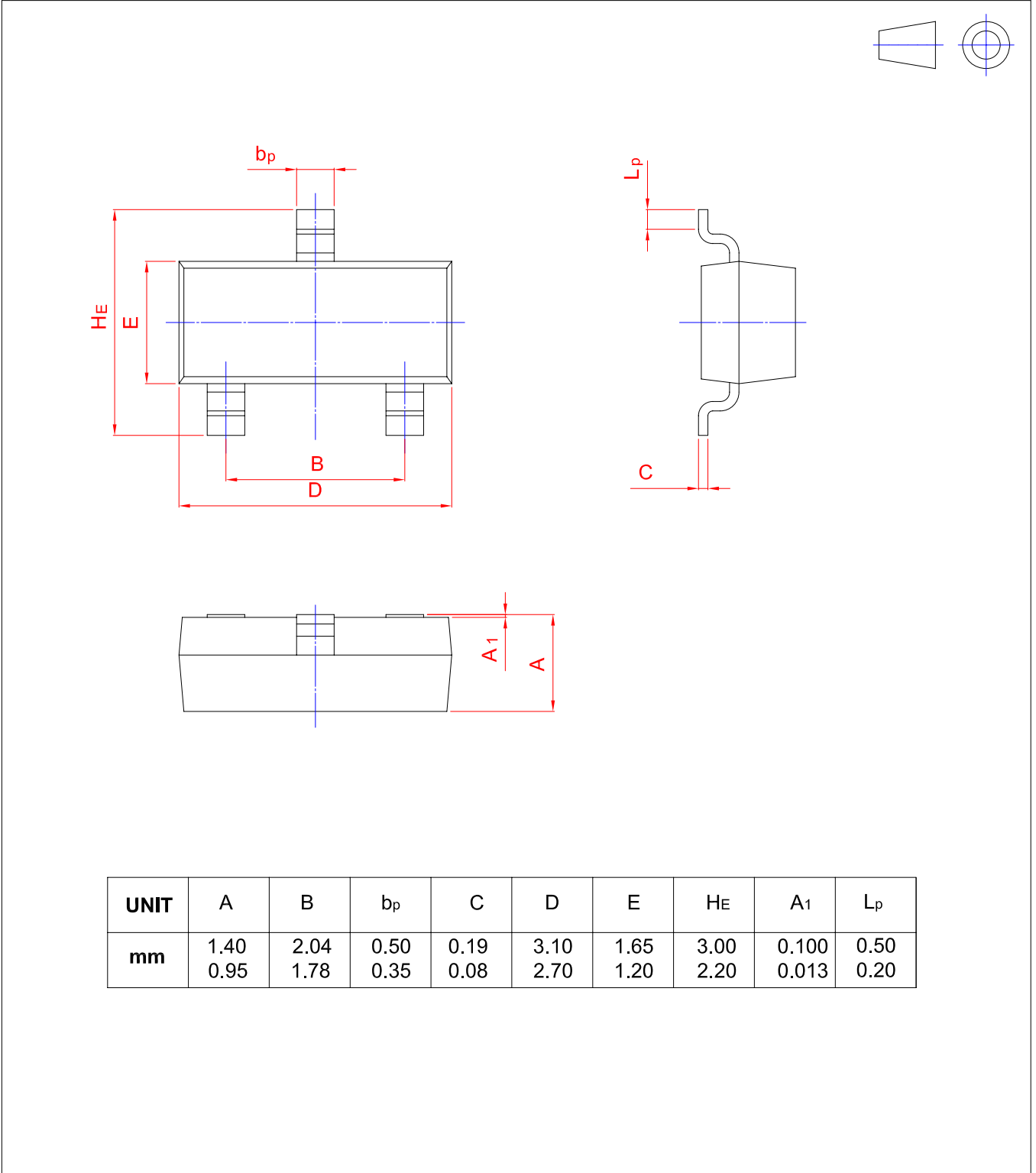
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## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



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