

# BAW56

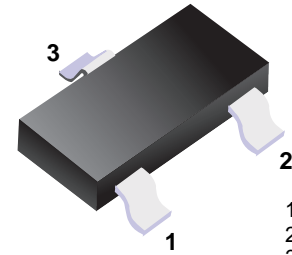
## Switching Diodes

### Features

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

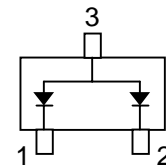
### Marking

Marking	A1
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1. Cathode
2. Cathode
3. Anode

### Simplified outline(SOT-23)



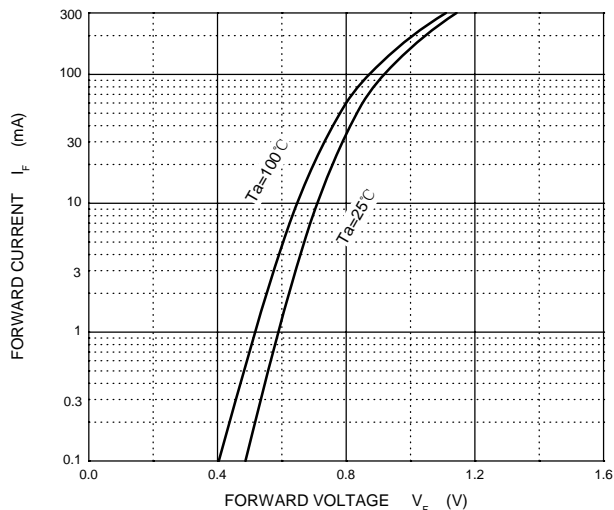
### Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	70	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	2	A
Total Device Dissipation	$P_{tot}$	225	mW
Operating Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 55 to + 150	$^\circ\text{C}$

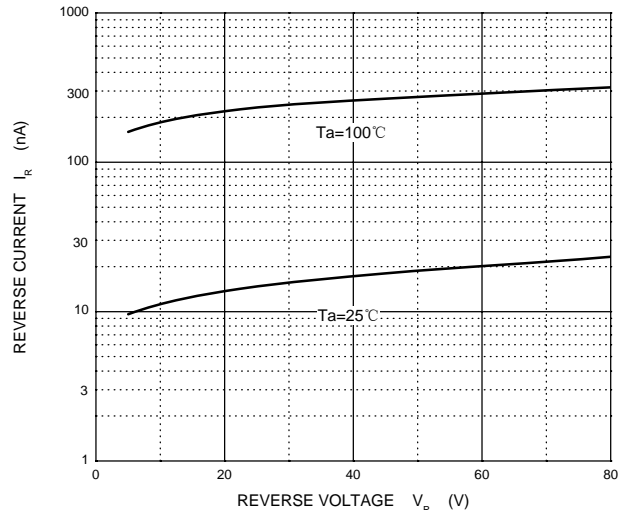
### Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_R$	70	-	V
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 150 \text{ mA}$	$V_F$	- - - -	0.715 0.855 1 1.25	V
Reverse Current at $V_R = 70 \text{ V}$	$I_R$	-	2.5	$\mu\text{A}$
Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}$ , $I_{RR} = 0.1 \cdot I_R$ , $R_L = 100 \Omega$	$t_{rr}$	-	6	ns
Total Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_T$	-	1.5	pF

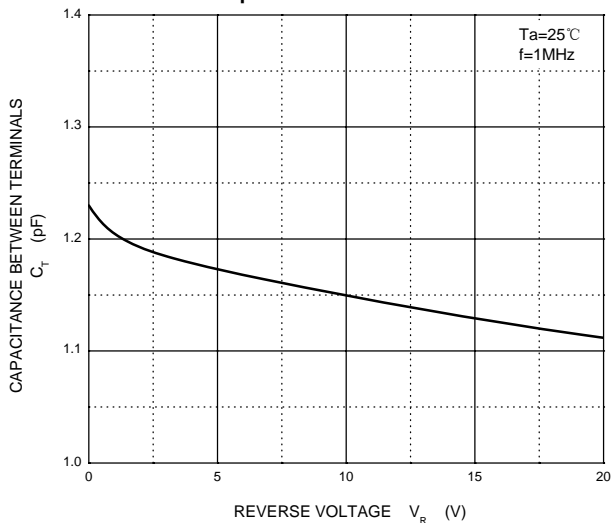
**Forward Characteristics**



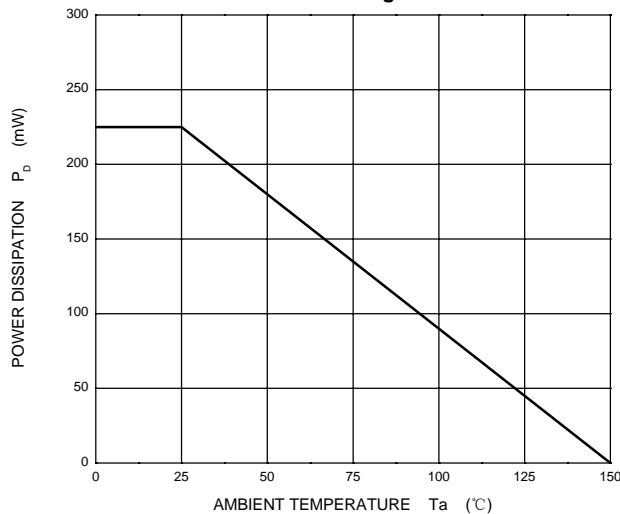
**Reverse Characteristics**



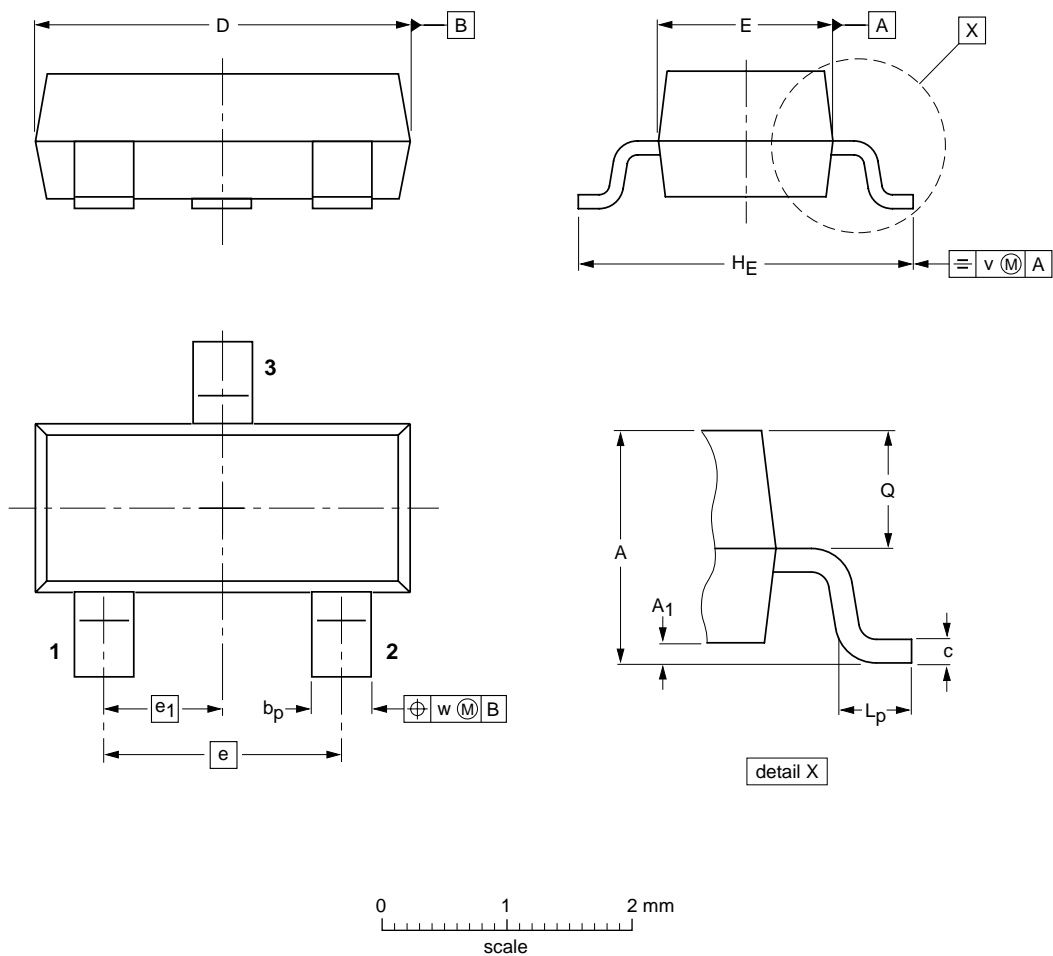
**Capacitance Characteristics**



**Power Derating Curve**



■ SOT-23



**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1