

6nS, 225mW, 200mA SOT-23 Plastic-Encapsulate Switching Diode

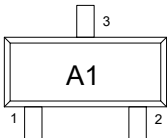
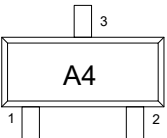
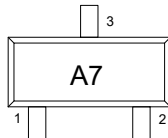
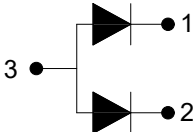
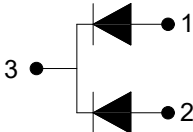
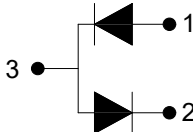
1. Features

- Fast switching device ($T_{rr} < 6\text{ns}$)
- Power dissipation of 225mW
- High stability and high reliability
- Low reverse leakage

2. Mechanical Data

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

3. Marking and Circuit

BAW56	BAV70	BAV99
		
		

4. Specification

Absolute Maximum Rating & Thermal Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

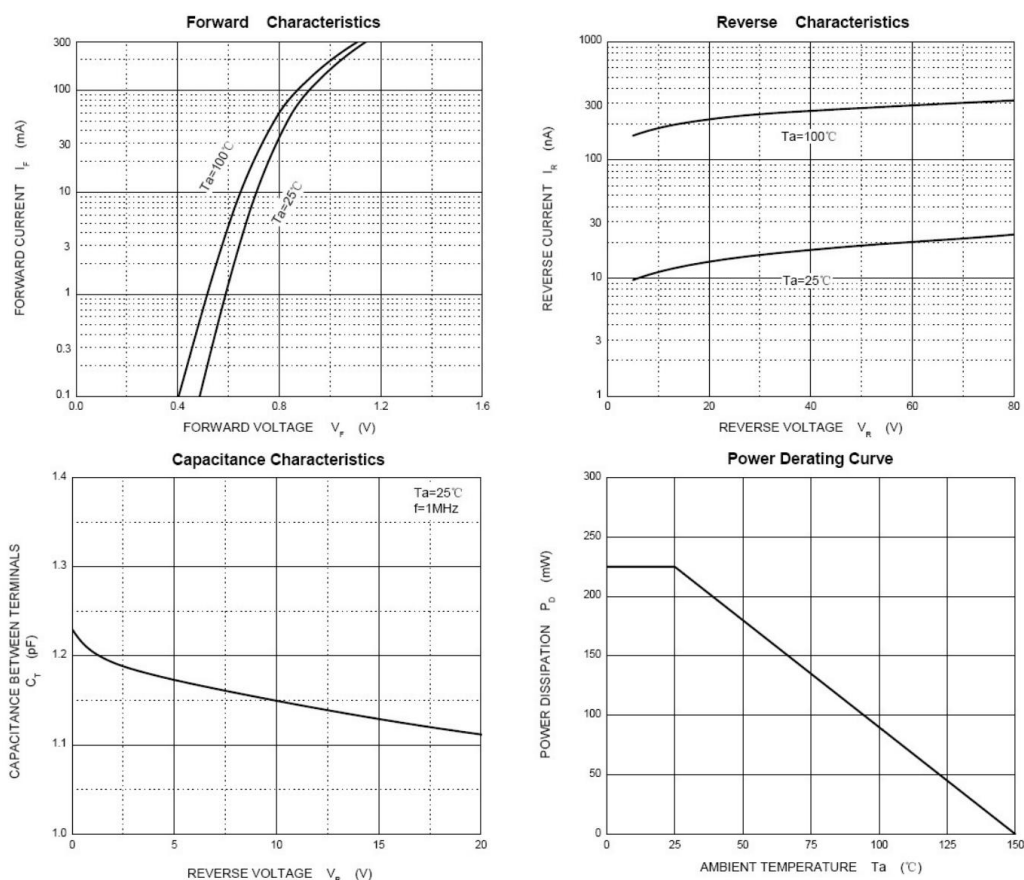
Parameters	Symbol	Limit	Unit
Reverse voltage	VR	70	V
Power Dissipation	PD	225	mW
Operating junction temperature	Tj	150	°C
Storage temperature range	Ts	-65~150	°C
Average rectified current	IO	200	mA
Non-repetitive peak forward current	IFM	400	mA
Peak forward surge current @tp=1ms; TA=25°C	IFSM	2.0	A
Typical thermal resistance	RθJA	500	°C/W

Electrical Characteristics

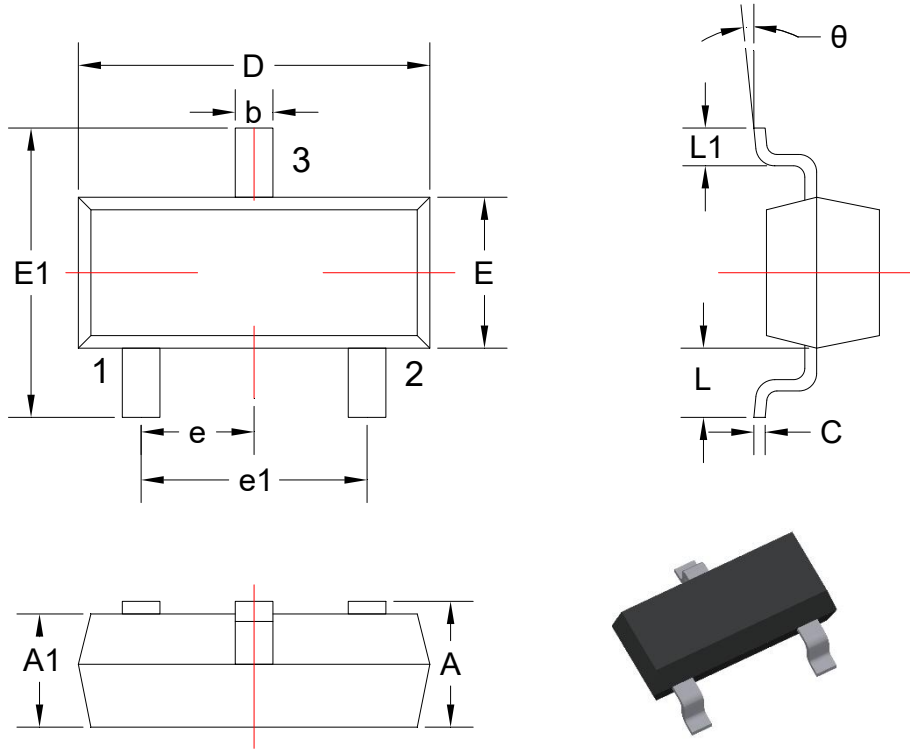
At TA = 25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Maximum forward voltage	V_F	IF=1mA			0.715	V
		IF=10mA			0.855	
		IF=50mA			1.00	
		IF=150mA			1.25	
Maximum reverse breakdown voltage	V_{RB}	IR=100uA	70			V
Maximum reverse leakage current	I_R	VR=70V			2.5	uA
Type junction capacitance	C_j	VR=1.0V, f=1MHz			1.5	pF
Reverse recovery time	T_{RR}	IF=IR=10mA Irr=0.1 x IR, RL=100Ω			6	nS

5. Typical Characteristic

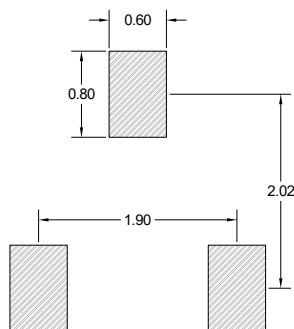


6. Dimension and Patterns (SOT-23)



Units: mm

Symbol	Dimensions		Symbol	Dimensions	
	Min.	Max.		Min.	Max.
A	0.900	1.150	E1	2.250	2.550
A1	0.900	1.050	e	0.950TYP	
b	0.300	0.500	e1	1.800	2.000
c	0.080	0.150	L	0.550REF	
D	2.800	3.00	L1	0.300	0.500
E	1.200	1.400	θ	0°	8°



Note:

- Controlling dimension: in millimeters
- General tolerance: $\pm 0.05\text{mm}$
- The pad layout is for reference only
- Unit: mm

Notice

1. All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. The right to explain is owned by CCX electronics company.
2. Confirm that operation temperature is within the specified range described in the product specification.

Avoid applying power exceeding normal rated power; exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.
3. CCX shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.