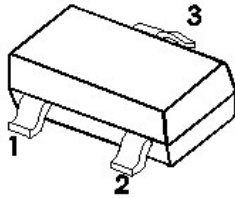


SOT-23 Plastic-Encapsulate Switching Diode

SOT-23



Features

- Fast Switching Device (TRR <6nS)
- Power Dissipation of 225mW
- High Stability and High Reliability
- Low reverse leakage

Mechanical Data

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

BAW56	BAV70	BAV99
MARKING:A1	MARKING:A4	MARKING:A7

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

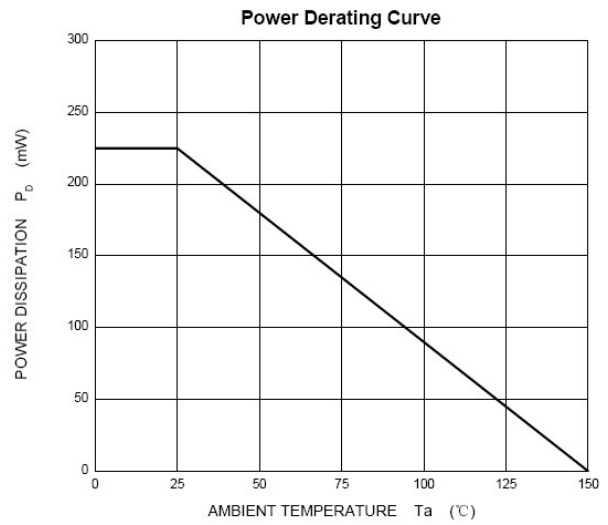
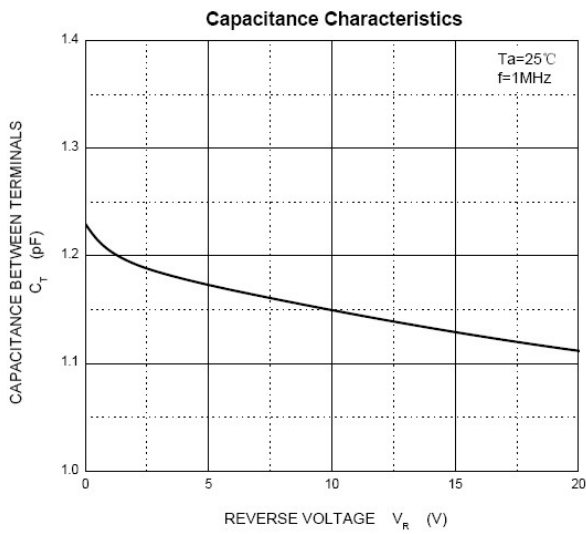
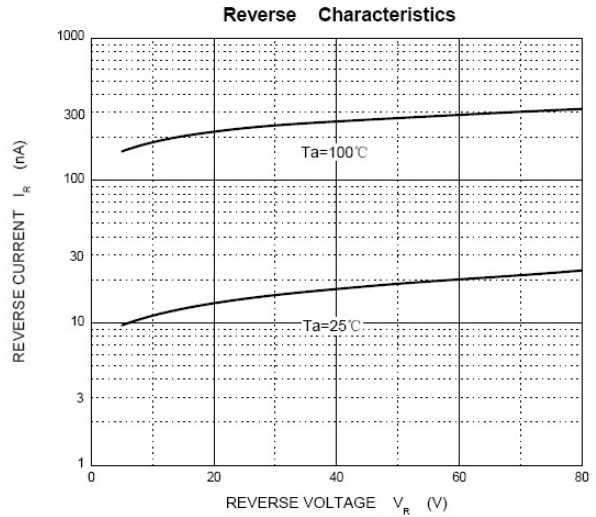
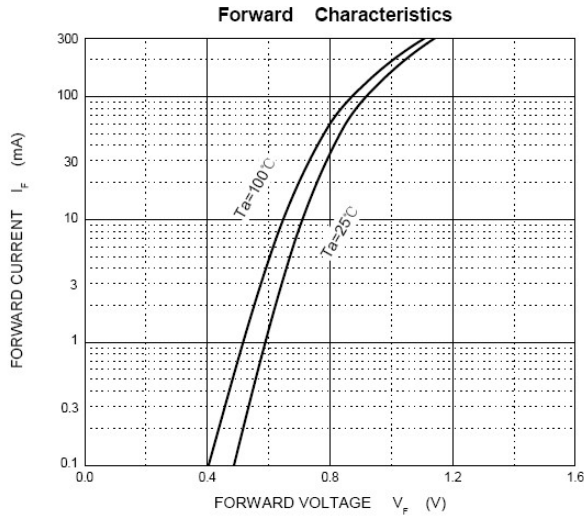
Parameters	Symbol	Value	Unit
Reverse Voltage	VR	70	V
Power Dissipation	Pd	225	mW
Operating junction temperature	Tj	150	°C
Storage temperature range	Ts	-65-+150	°C
Average Rectified Current	IO	200	mA
Non-repetitive Peak Forward Current	IFM	400	mA
Peak Forward Surge Current @tp=1ms; TA=25°C	IFSM	2.0	A
Typical thermal resistance	RθJA	500	°C/W

Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

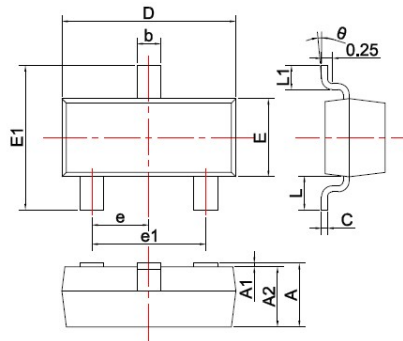
Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
VRB	Reverse Voltage	IB=100uA	70	---	V
IR	Reverse Leakage Current	VR=70V	---	2.5	uA
VF	Forward Voltage	IF=1mA	---	0.715	V
		IF=10mA	---	0.855	
		IF=50mA	---	1.00	
		IF=150mA	---	1.25	
TRR	Reverse Recovery Time	IF= IR=10mA,RL=100Ω IRR=0.1xIR	---	6	nS
CT	Capacitance	VR=0V, f=1MHZ	---	1.5	pF

Typical Characteristics



SOT-23 PACKAGE OUTLINE

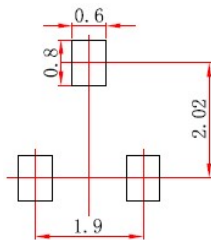
Plastic surface mounted package



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.600	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

Precautions: PCB Design(Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs)



- Note:
- Controlling dimension: In millimeters.
 - General tolerance: $\pm 0.05\text{mm}$.
 - The pad layout is for reference purposes only.