

SOT-23 Plastic-Encapsulate Switching Diode

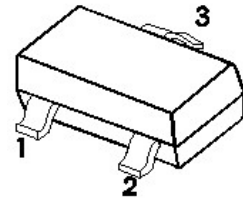
Features

- Fast Switching Device (TRR <50nS)
- Power Dissipation of 350mW
- High Stability and High Reliability
- Low reverse leakage

Mechanical Data

- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any
- AEC-Q101 qualified (Automotive grade with suffix " Q")

SOT-23



BAV23A	BAV23C	BAV23S
MARKING: KT7	MARKING: KT6	MARKING: KL31

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

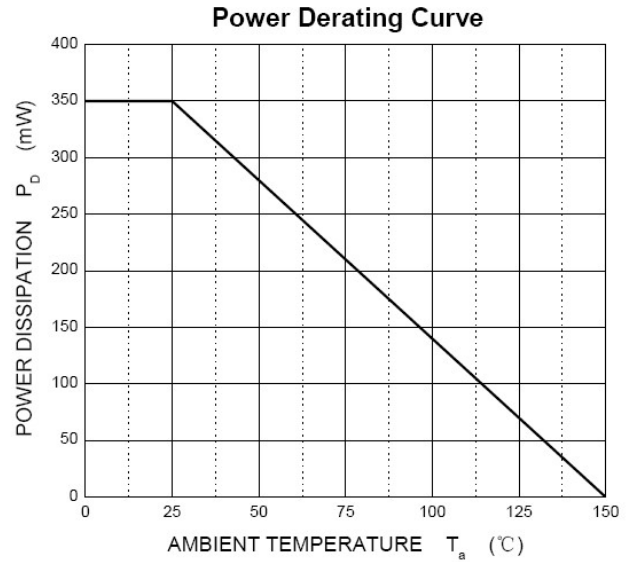
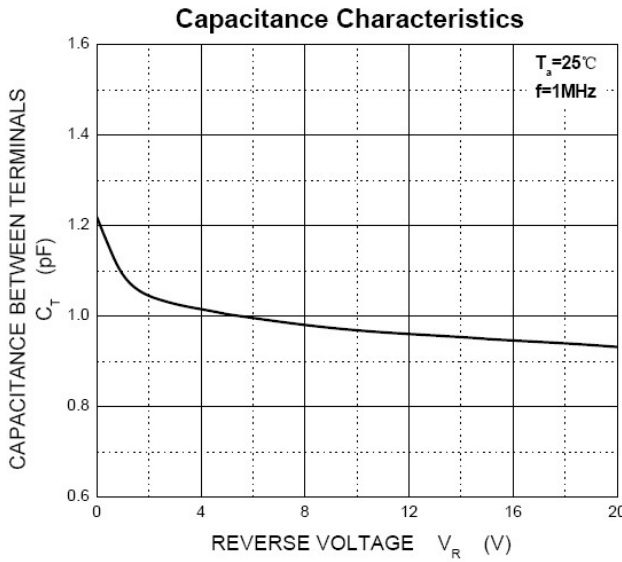
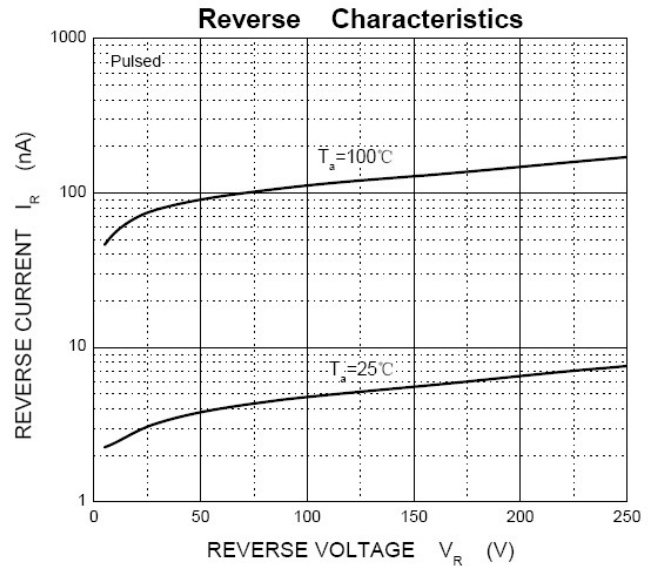
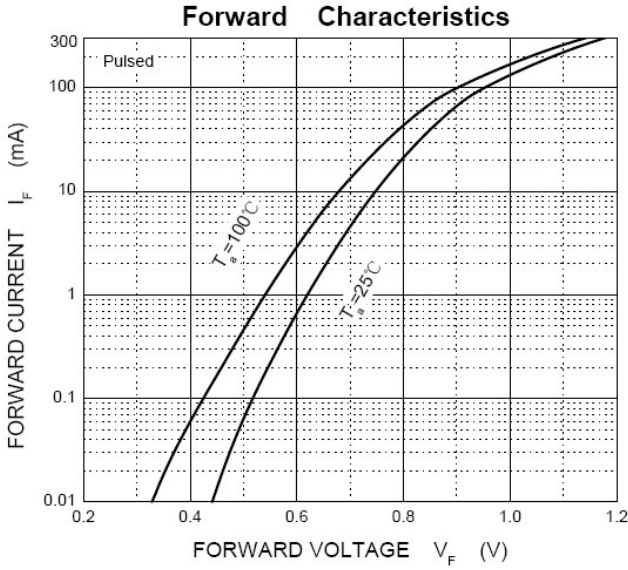
Parameters	Symbol	Value	Unit
Reverse Voltage	V_R	250	V
Peak Repetitive Reverse Voltage	V_{RRM}	175	V
Power Dissipation	P_d	350	mW
Average Rectified Output Current	I_o	225	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms; TA=25°C	I_{FSM}	1.7	A
Operating junction temperature	T_j	150	°C
Storage temperature range	T_s	-55-+150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	357	°C/W

Valid provided that electrodes are kept at ambient temperature.

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

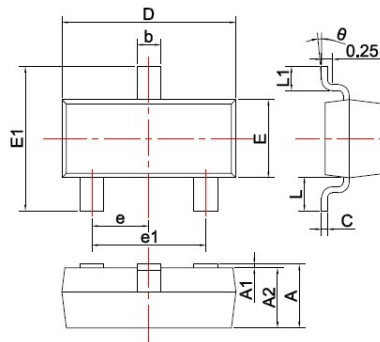
Symbols	Parameter	Test Condition	Limits		Unit
			Min	Max	
V(BR)	Reverse Voltage	IR=100uA	250		V
IR	Reverse Leakage Current	VR=250V	---	0.1	uA
VF	Forward Voltage	IF=100mA	---	1.00	V
		IF=200mA	---	1.25	
TRR	Reverse Recovery Time	IF= IR=30mA	---	50	nS
		RL=100Ω			
		IRR=0.1 X IR			
CT	Capacitance	VR=0V, f=1MHZ	---	5	pF

Typical Characteristics



SOT-23 PACKAGE OUTLINE

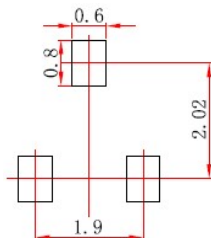
Plastic surface mounted package



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	2.800	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:
1. Controlling dimension; in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.