

SOT-23 Plastic-Encapsulate Switching Diode

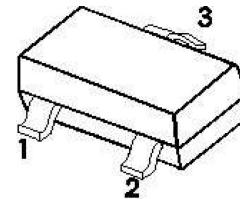
Features

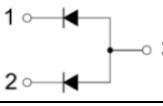
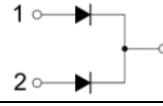
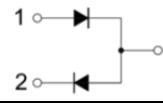
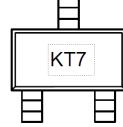
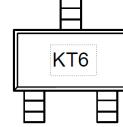
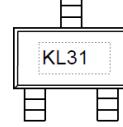
- Fast Switching Device (TRR <50nS)
- Power Dissipation of 350mW
- High Stability and High Reliability
- Low reverse leakage

SOT-23

Mechanical Data

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



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

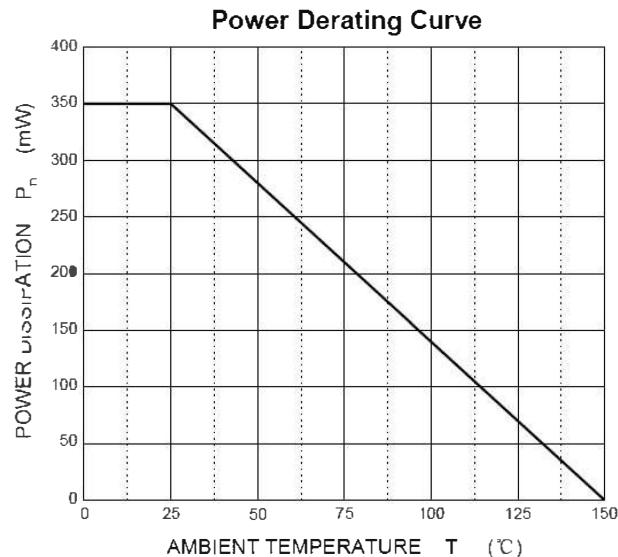
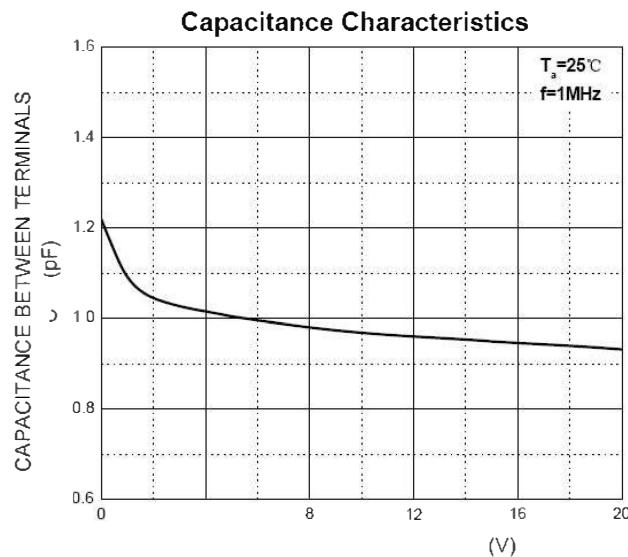
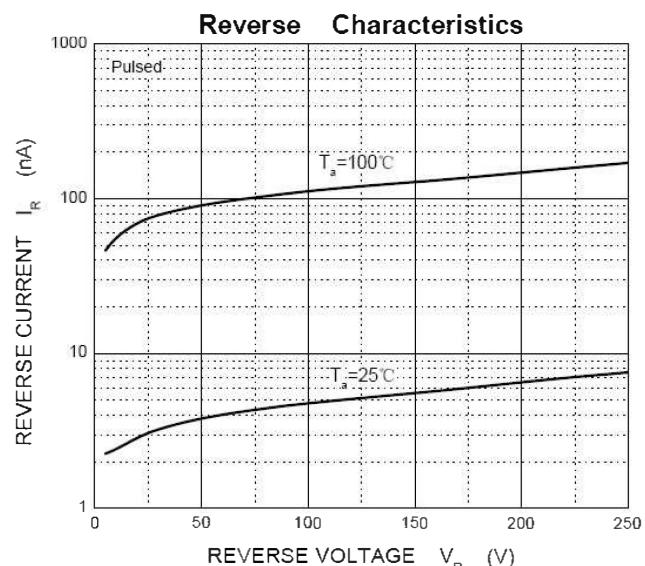
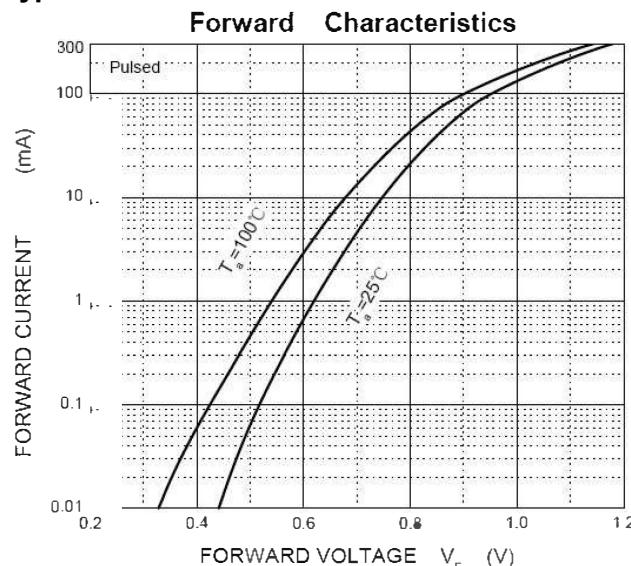
Maximum Rating ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Parameters	Symbol	Unit	Conditions	Value
Repetitive peak reverse voltage	V_{RRM}	V		175
Average Rectified Output Current	I_o	mA		225
Non-repetitive Peak Forward Surge Current	I_{FSM}	A	$t=8.3\text{ms}$ single half sine-wave	1.7
Power Dissipation	P_D	mW		350
Thermal Resistance from Junction to Ambient	R_{thJA}	$^\circ\text{C/W}$		357
Operation Junction Temperature	T_J	$^\circ\text{C}$		-55 to +150
Storage Temperature	T_{STG}	$^\circ\text{C}$		-55 to +150

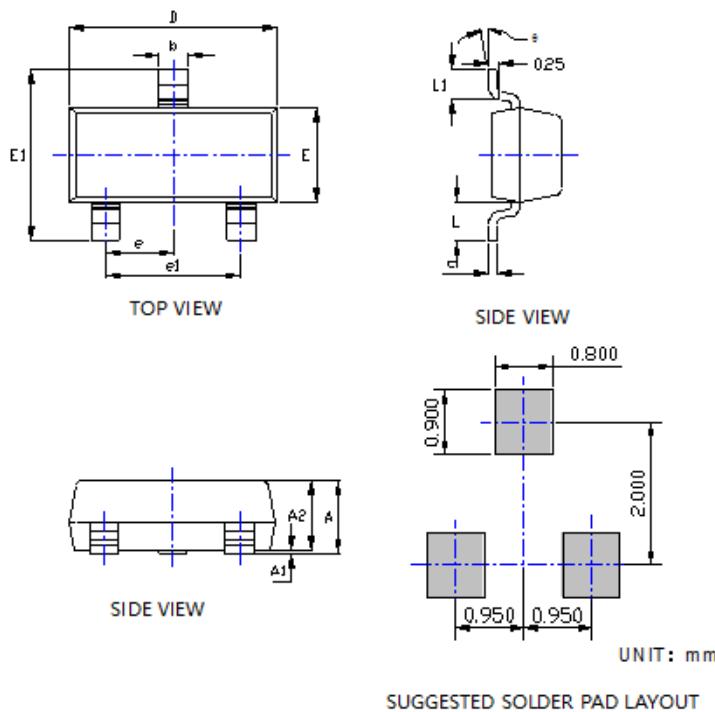
Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified, Per Leg)

Parameters	Symbol	Unit	Conditions	Min	Typ	Max
Reverse Voltage	V_{BR}	V	$I_R=100\mu\text{A}$	250		
Forward Voltage	V_F	V	$I_{FM}=100\text{mA}, T_J=25^\circ\text{C}$			1
			$I_{FM}=200\text{mA}, T_J=25^\circ\text{C}$			1.25
Reverse Current	I_R	μA	$V_R=250\text{V}$			0.1
Total Capacitance	C_{tot}	pF	$f=1.0\text{MHz}, V_R=0\text{V}$			5
Reverse Recovery Time	T_{rr}	ns	$I_F=I_R=30\text{mA}, V_R=6\text{V}, R_L=100\Omega,$ $I_{rr}=3\text{mA}$			50

Typical Characteristics



SOT-23 Package Outline Dimensions



SYMBOL	DIMENSIONS		Millimeter	
	INCHES		MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.020	0.300	0.500
θ	0°	8°	0°	8°

NOTE:

1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.

2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.

3.THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.