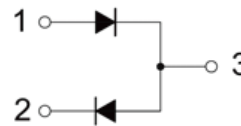


Features

- Fast Switching Speed
- High Conductance
- For General Purpose Switching Applications



SOT23



Equivalent Circuit

Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$)

Symbol	Parameter	Value	Unit
V_{RRM}	Peak Repetitive Peak Reverse Voltage	250	V
V_{RWM}	Working Peak Reverse Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	175	V
I_O	Average Rectified Output Current	225	mA
I_{FRM}	Repetitive Peak Forward Surge Current	625	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	1.7	A
P_d	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	357	$^{\circ}\text{C}/\text{W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Max	Unit
$V_{(BR)}$	Reverse breakdown voltage	$I_R=100\mu\text{A}$	250		V
I_R	Reverse current	$V_R=250\text{V}$		0.1	μA
V_F	Forward voltage	$I_F=100\text{mA}$		1.0	V
		$I_F=200\text{mA}$		1.25	V
C_{tot}	Total capacitance	$V_R=0\text{V}, f=1\text{MHz}$		5	pF
t_{rr}	Reverse recovery time	$I_F=I_R=30\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$		50	nS

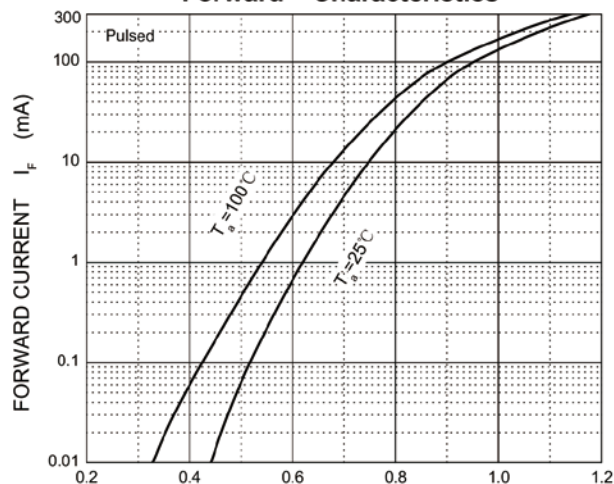
Ordering information

Product ID	Marking	Naming rule	Pack	Qty(PCS)
BAV23S	KL31	BAV23S 产品名称 product name	SOT23	3000

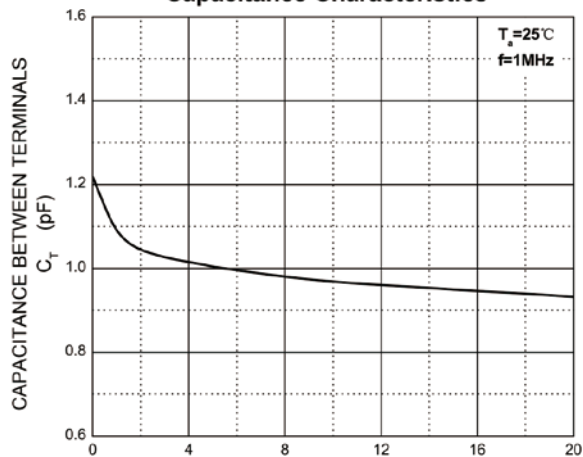


Typical Characteristics

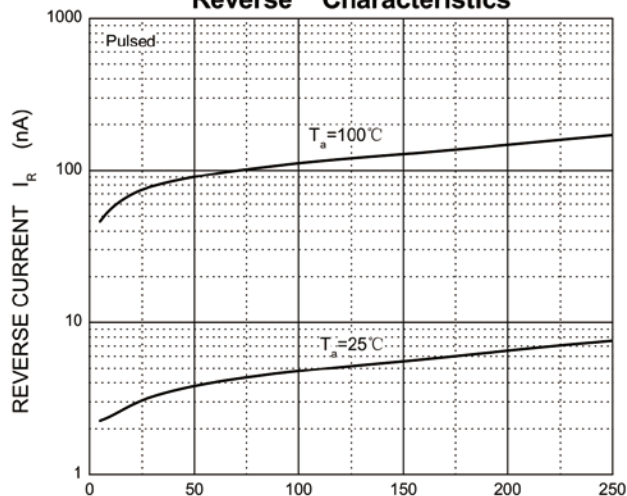
Forward Characteristics

FORWARD VOLTAGE V_F (V)

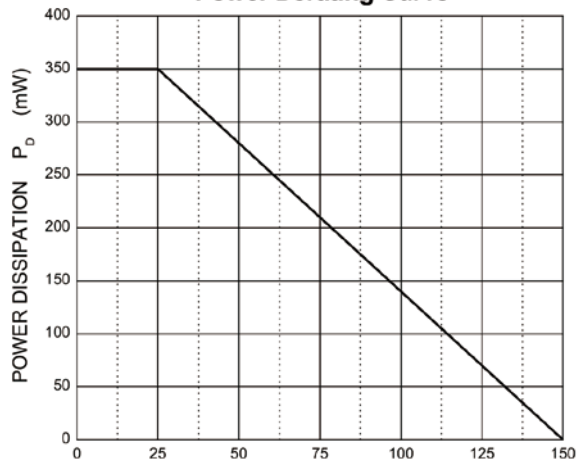
Capacitance Characteristics

REVERSE VOLTAGE V_R (V)

Reverse Characteristics

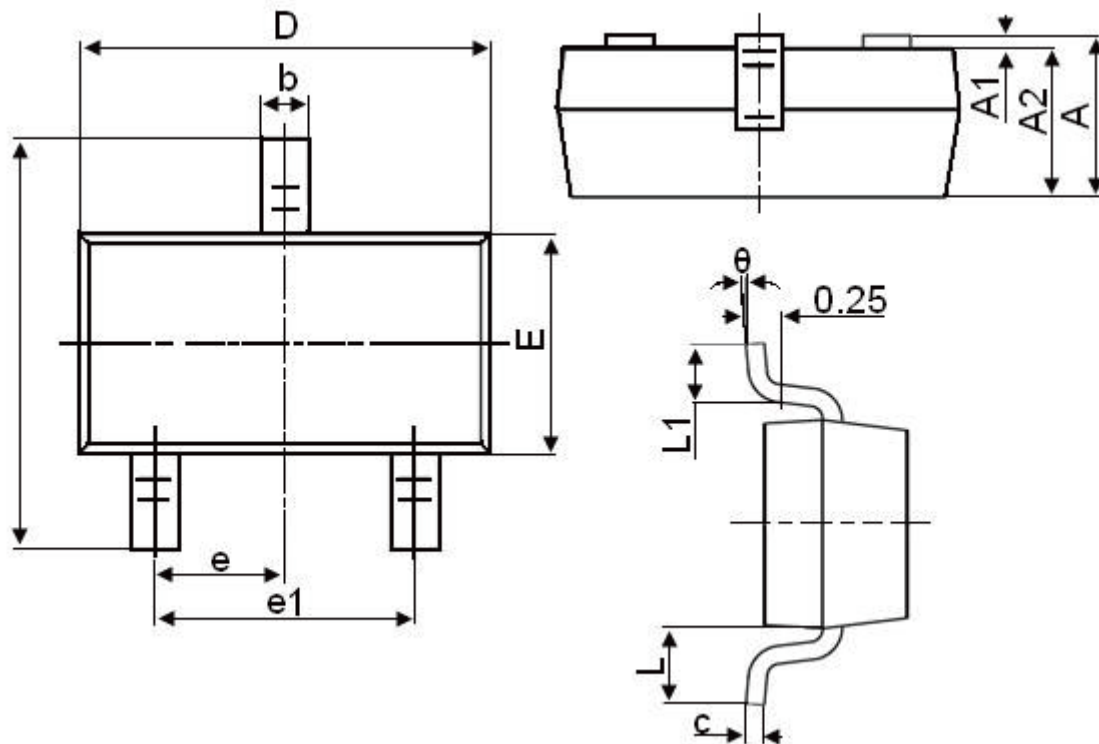
REVERSE VOLTAGE V_R (V)

Power Derating Curve

AMBIENT TEMPERATURE T_a ($^\circ\text{C}$)



SOT23 Package Outline Dimensions



Symbol	Dimensions in Millimeters	
	mm	
	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°