

SOT-23 Plastic-Encapsulate Switching Diode

Features

- 50nS; Fast Switching Device (TRR <50 nS)
- 250mW; Power Dissipation of 250mW
- High Stability and High Reliability
- Low reverse leakage



RoHS
COMPLIANT



Marking:

SOT-23

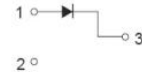
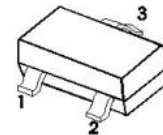
BAS19: JP
BAS20: JR

Mechanical Data

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

Pin definition

Equivalent circuit



Maximum Ratings & Electrical Characteristics (T_A=25°C unless otherwise noted)

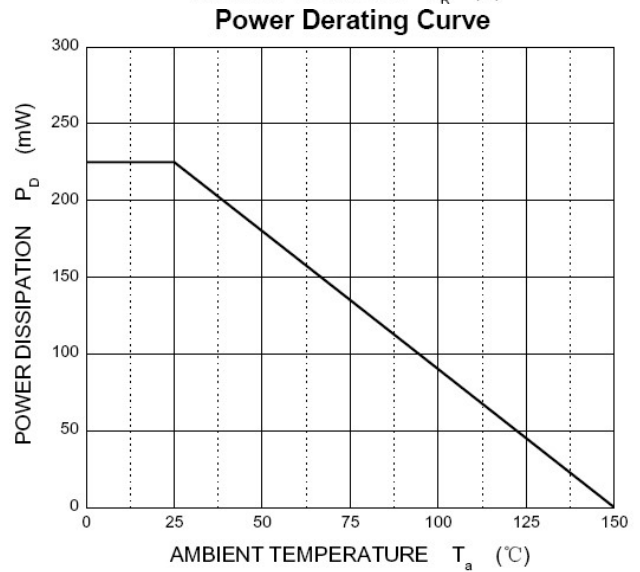
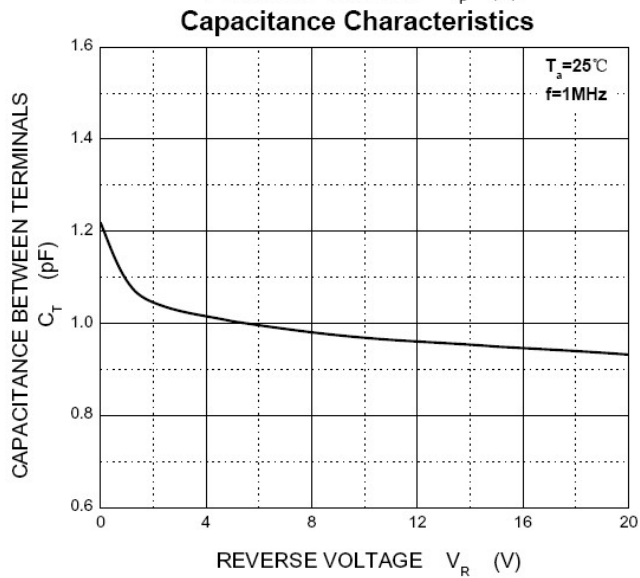
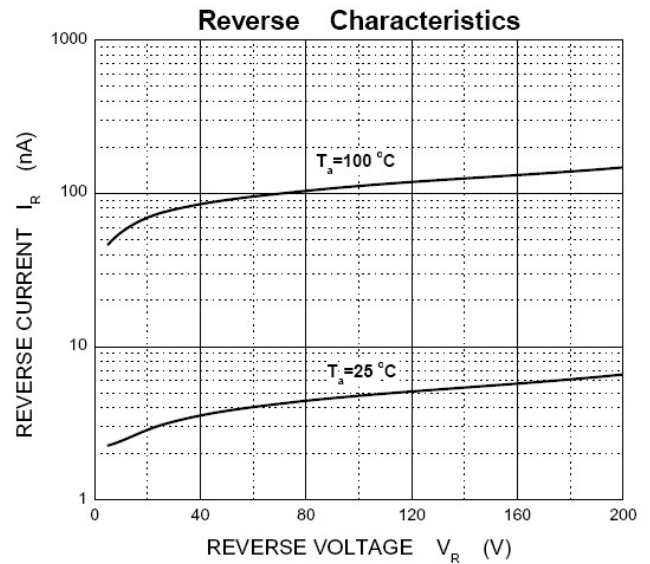
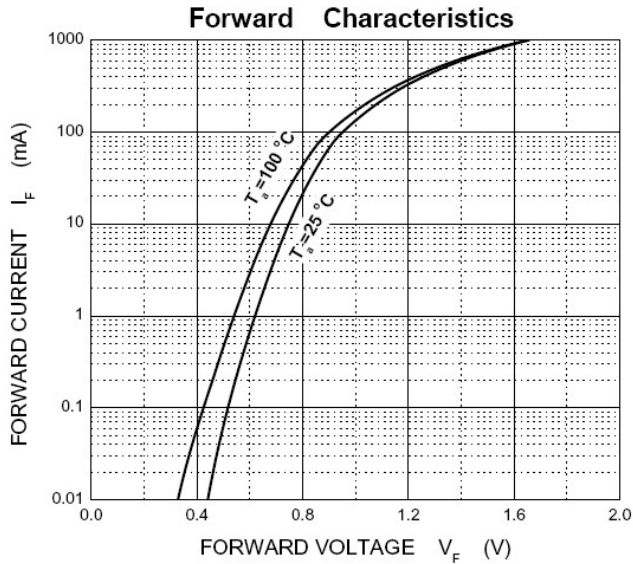
Parameter	Symbol	Value		Unit
		BAS19	BAS20	
Reverse Voltage	V _R	100	150	V
Peak Repetitive Reverse Voltage	V _{RRM}	120	200	V
Power Dissipation	P _D	250		mW
Average Rectified Current	I _O	200		mA
Peak Forward Surge Current@tp=1us; TA=25°C	I _{FSM}	2.5		A
Operating junction temperature range	T _J	150		°C
Storage temperature range	T _{STG}	-55 to +150		°C
Thermal Resistance from Junction to Ambient	R _{θJA}	500		°C/W

Electrical Specifications (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions		Limits		Unit
				Min	Max	
Reverse Voltage	V _(BR)	BAS19	I _R =100uA	100		V
		BAS20		150		V
Forward Voltage	V _F	I _F =100mA			1.00	V
		I _F =200mA			1.25	V
Reverse Leakage Current	I _R	BAS19	VR=100V		0.1	uA
		BAS20	VR=150V			
Typical junction capacitance	C _J	VR=0V, f=1MHZ			2	pF
Typical reverse recovery time	T _{RR}	I _F =I _R =30mA RL=100Ω IRR=0.1 X I _R			50	nS

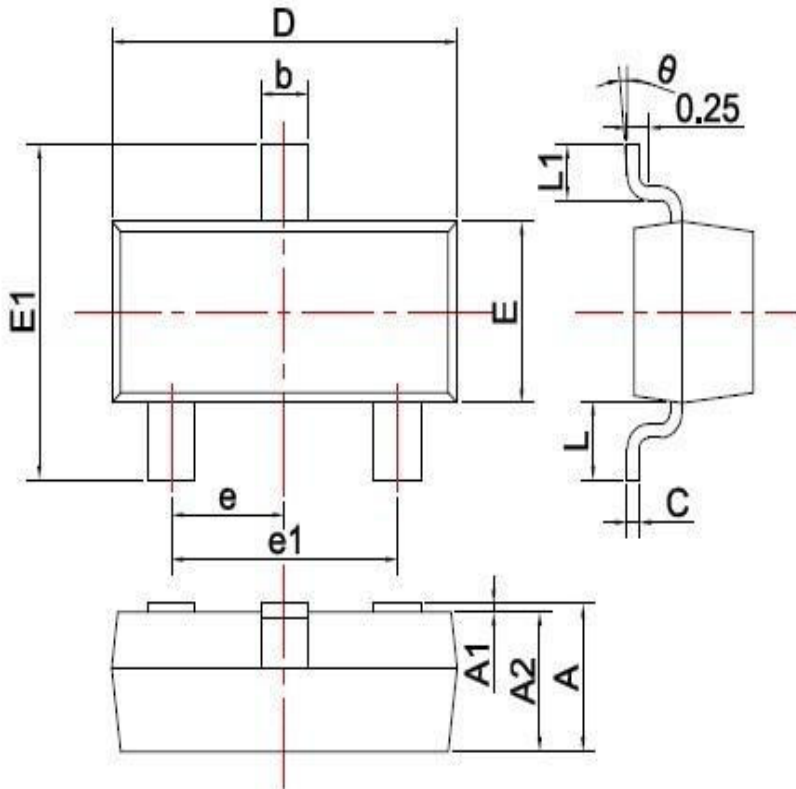
Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)



Package Outline Dimensions

millimeters



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°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.02.17	First issue

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