



Taiwan Goodark Technology Co.,Ltd

BAS19W THRU BAS21W

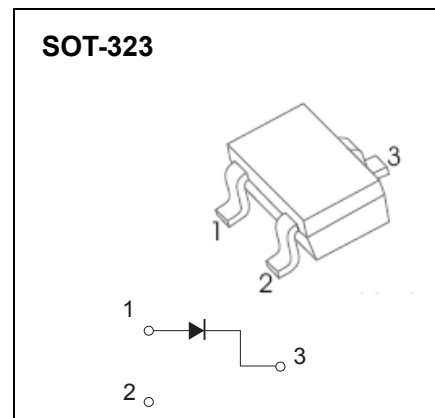
SWITCHING DIODE

FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

MARKING:

BAS19W:KA8	BAS20W:KT2	BAS21W:KT3



Solid dot = Green molding compound device, if none, the normal device.

Maximum Ratings @Ta=25°C

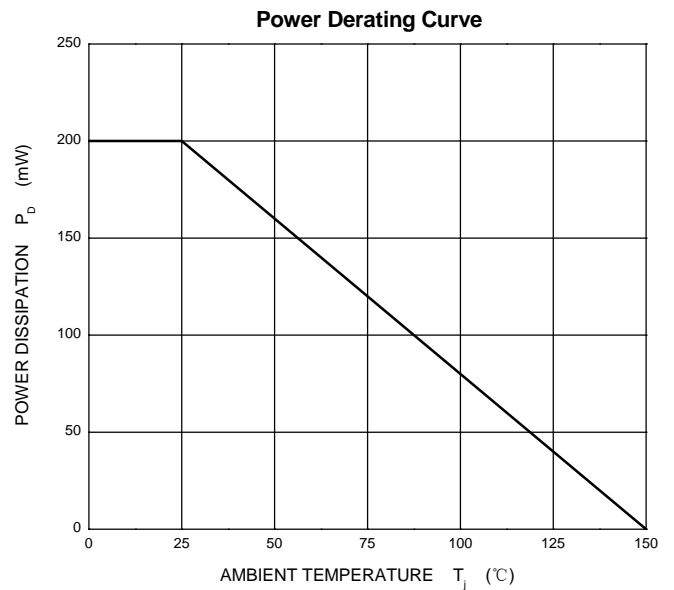
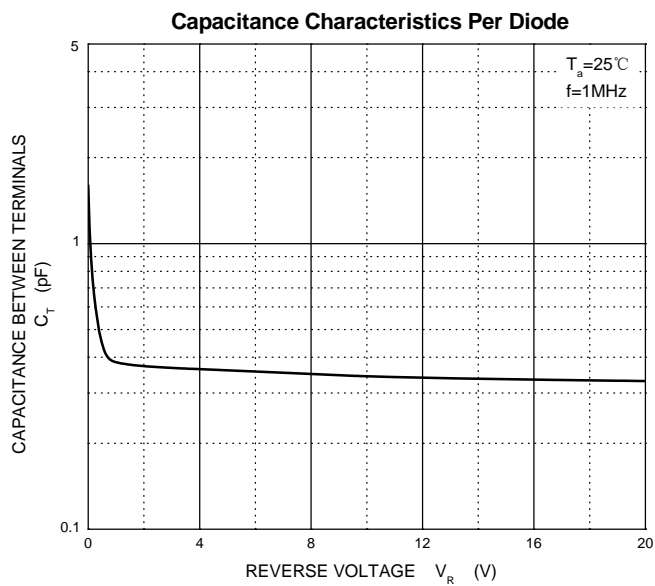
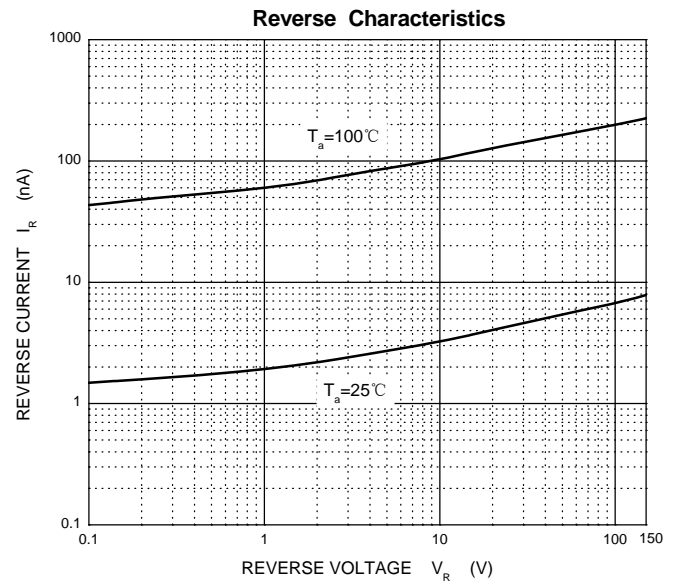
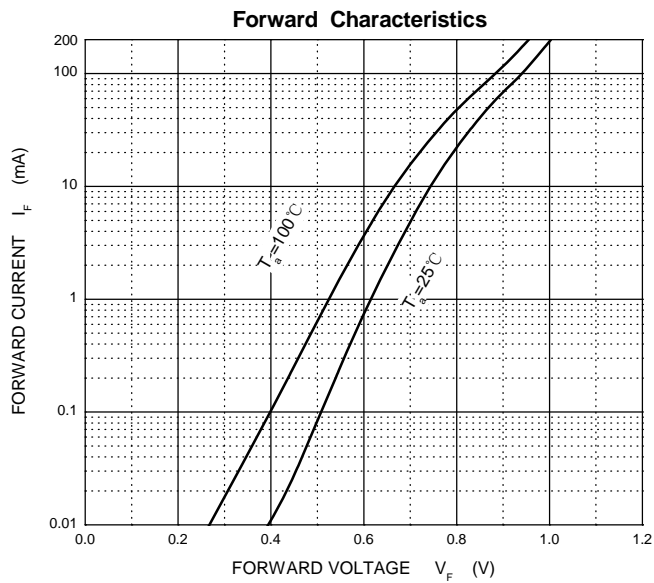
Parameter	Symbol	BAS19W	BAS20W	BAS21W	Unit
Peak Repetitive Reverse Voltage DC Blocking Voltage	V_{RRM} V_R	100	150	250	V
Average Rectified Output Current	I_O	200			mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.5			A
Power Dissipation	P_D	200			mW
Thermal Resistance θ_{JA} Junction to Ambient	$R_{\theta JA}$	625			°C/W
Junction Temperature	T_J	150			°C
Storage Temperature Range	T_{STG}	-55~+150			°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage BAS19W BAS20W BAS21W	$V_{(BR)}$	$I_R = 100\mu A$	100 150 250		V
Reverse voltage leakage current BAS19W BAS20W BAS21W	I_R	$V_R = 100V$ $V_R = 150V$ $V_R = 200V$		0.1	μA
Forward voltage	V_F	$I_F = 100mA$ $I_F = 200mA$		1 1.25	V
Diode capacitance	C_D	$V_R = 0V, f = 1MHz$		5	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 30mA, I_{rr} = 0.1 \times I_R$		50	ns

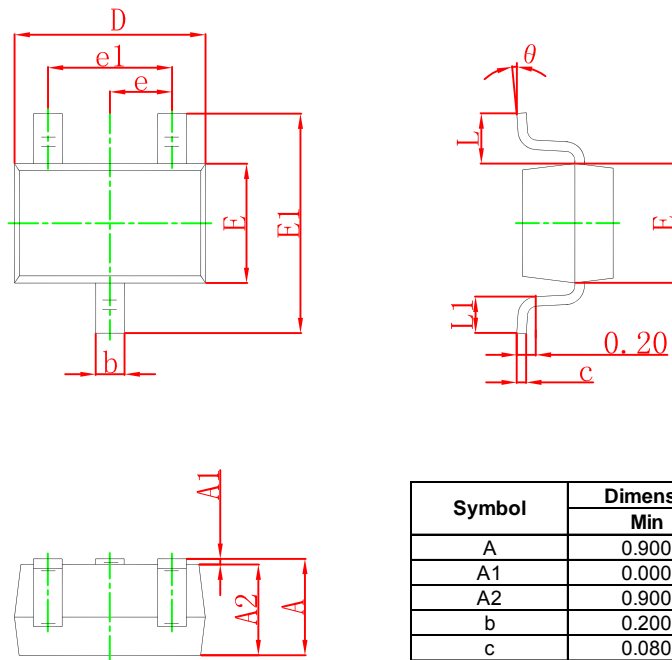


Typical Characteristics



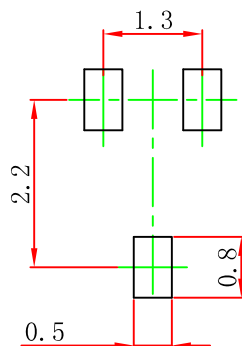


SOT-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

SOT-323 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.