

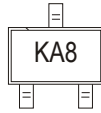
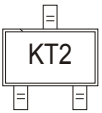
SOT-323 Plastic-Encapsulate Diodes

SWITCHING DIODE

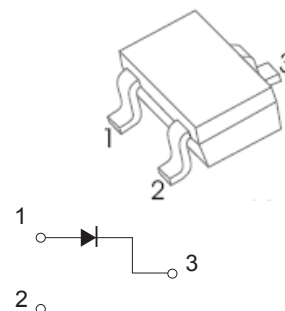
FEATURES

- 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
		

SOT-323



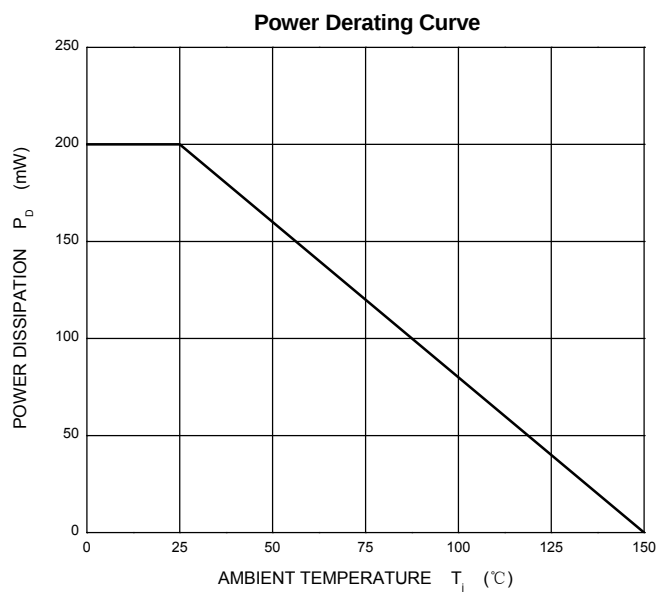
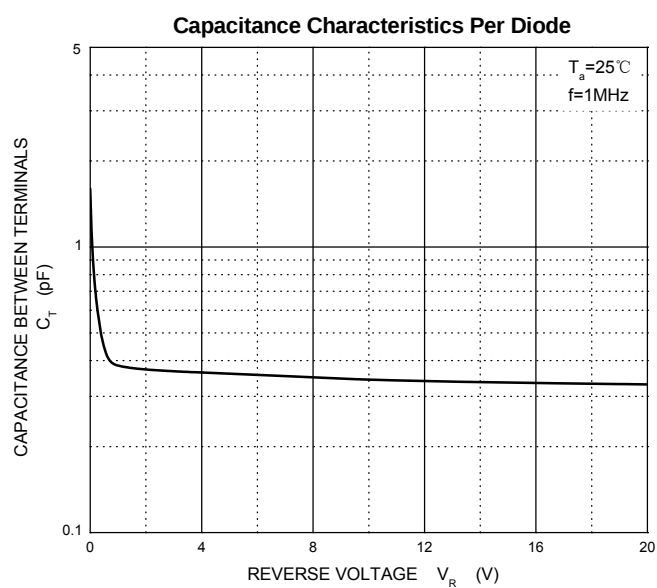
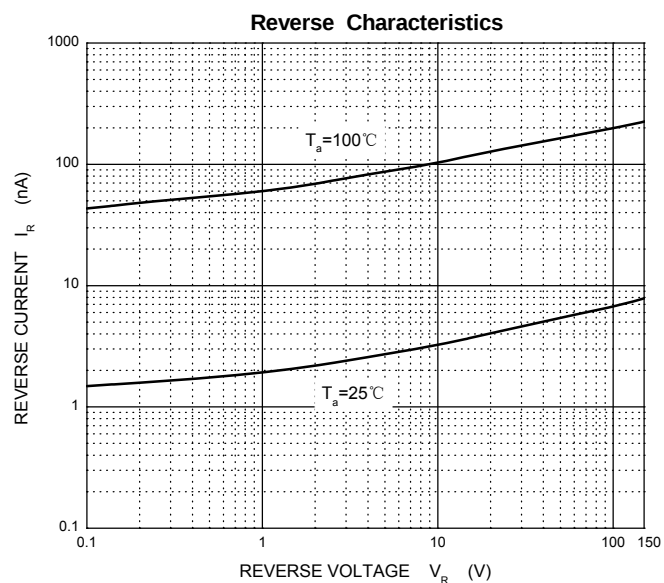
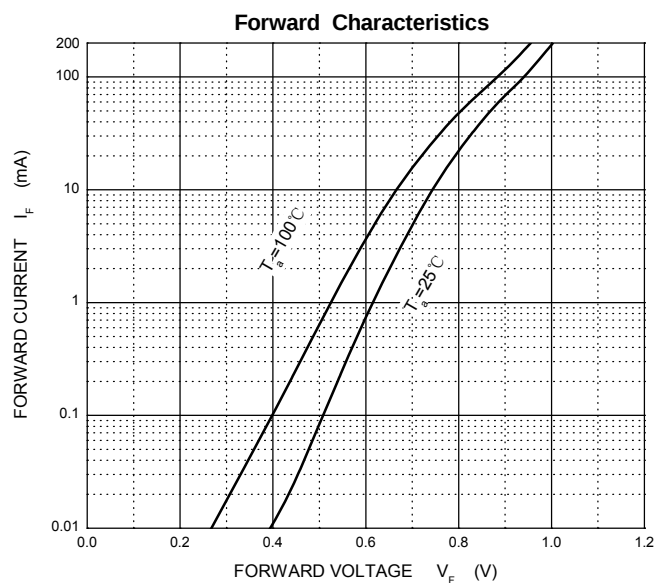
Maximum Ratings @Ta=25°C

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 from Junction to Ambient	$R_{\theta JA}$	625			°C/W
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150			°C

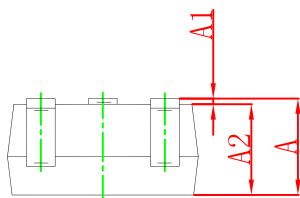
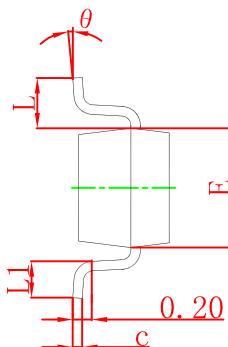
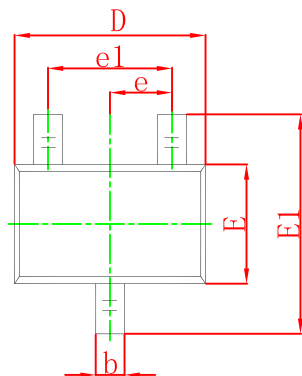
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

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
Reverses recovery time	t_{rr}	$I_F = I_R = 30mA, I_{rr} = 0.1 \times I_R$		50	ns

Typical Characteristics

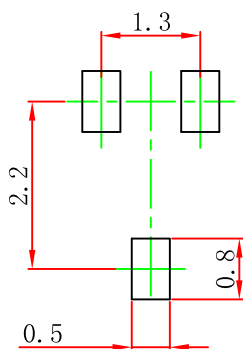


SOT-323 Package Outline Dimensions



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

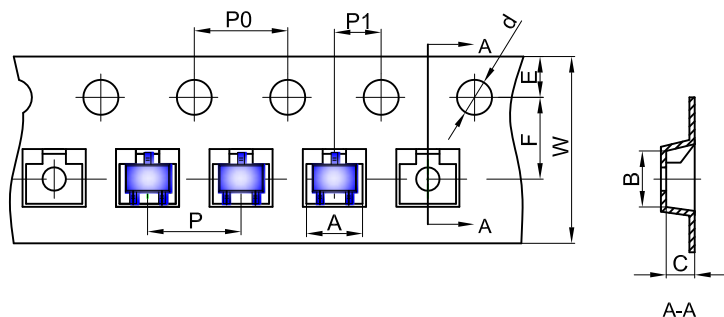


Note:

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

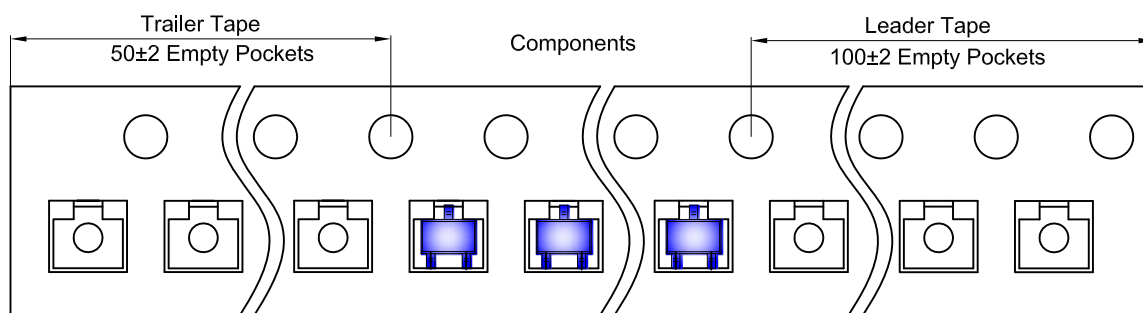
SOT-323 Tape and Reel

SOT-323 Embossed Carrier Tape

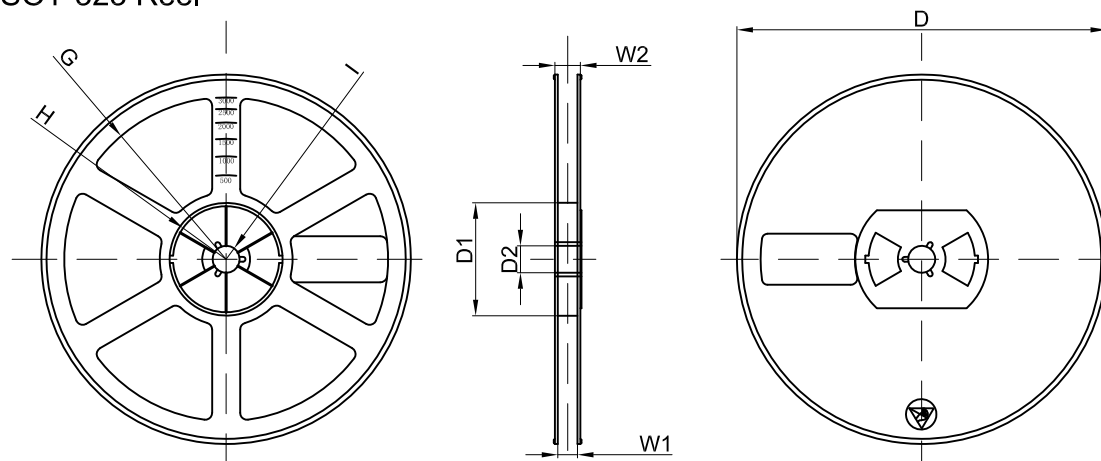


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-323	2.25	2.55	1.19	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOT-323 Tape Leader and Trailer



SOT-323 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	