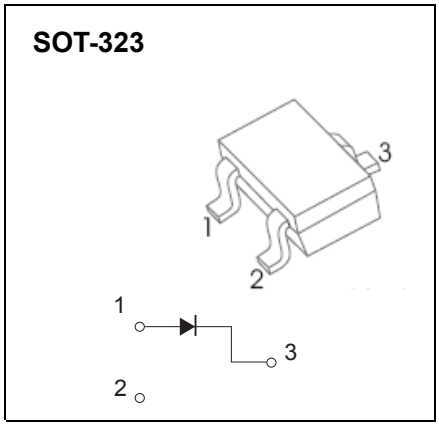
SZCJ

Shenzhen Changji Semiconductor Co., LTD.

SOT-323 Plastic-Encapsulate Diodes

BAS19W/20W/21W SWITCHING DIODE

SOT-323



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
KA8	KT2	KT3

Solid dot = Green molding compound device.

Maximum Ratings @Ta=25℃

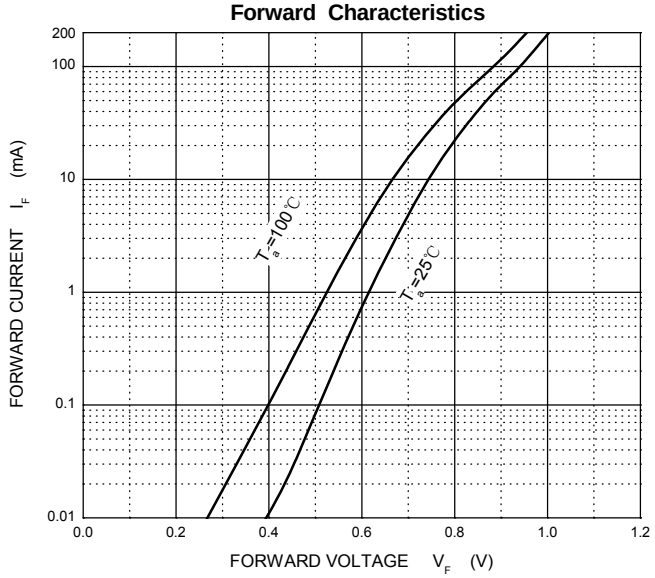
Parameter	Symbol	BAS19W	BAS20W	BAS21W	Unit
Peak Repetitive Reverse Voltage DC Blocking Voltage	V_{RRM} V_R	100	150	250	V
Average Rectified Output Current	I_O	200			mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.5			A
Power Dissipation	P_D	200			mW
Thermal Resistance from Junction to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

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

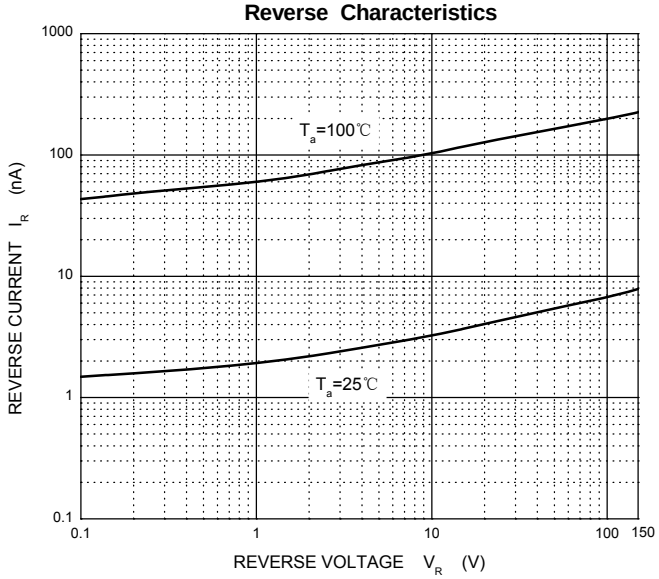
Parameter		Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	BAS19W BAS20W BAS21W	$V_{(BR)}$	I_R= 100μA	100 150 250		V
Reverse voltage leakage current	BAS19W BAS20W BAS21W	I_R	V_R=100V V_R=150V V_R=200V		0.1	μA
Forward voltage		V_F	I_F=100mA I_F=200mA		1 1.25	V
Diode capacitance		C_D	V_R=0V,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

Typical Characteristics

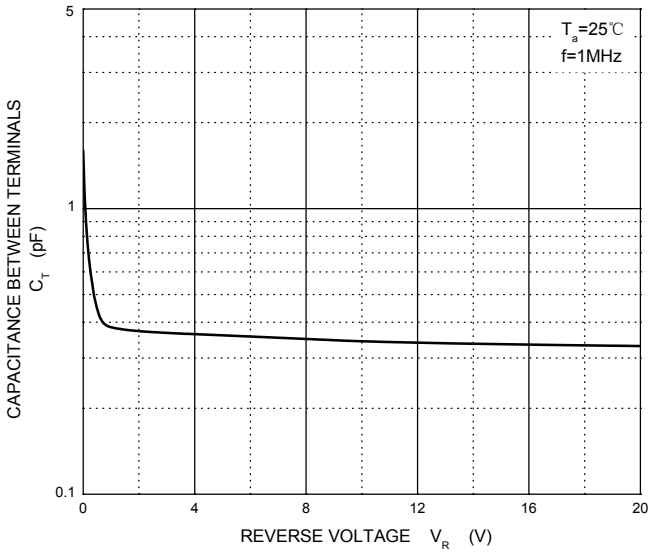
Forward Characteristics



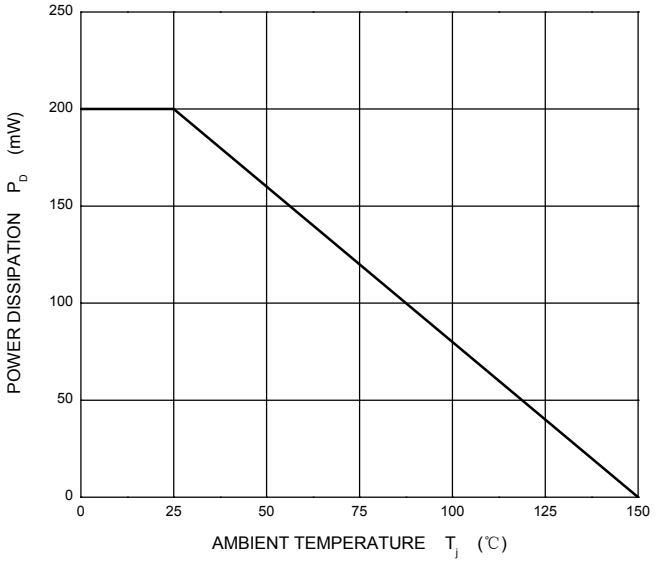
Reverse Characteristics



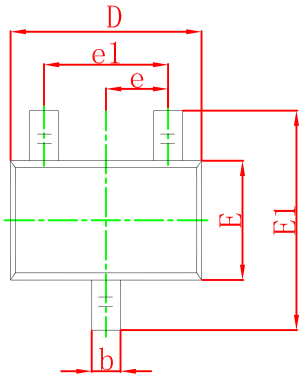
Capacitance Characteristics Per Diode

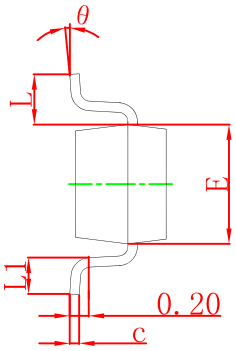


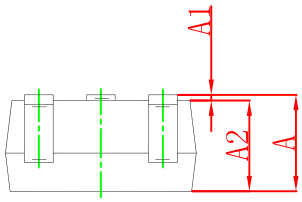
Power Derating Curve



SOT-323 Package Outline Dimensions

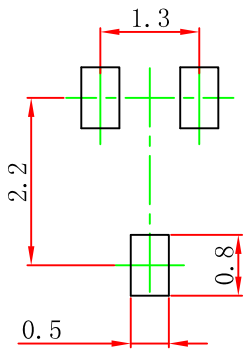






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 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



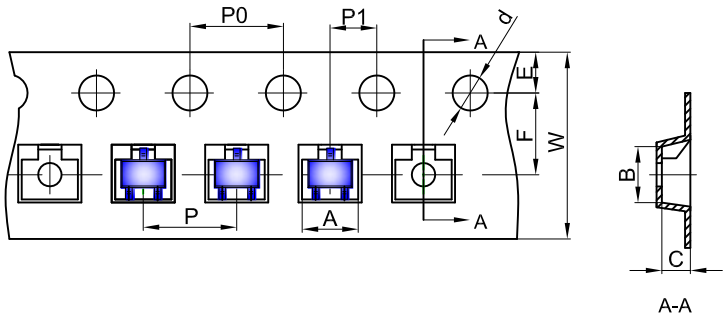
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

NOTICE

SZCJ reserves the right to make modifications,enhan nts,improvements,corrections or other es without further notice to any product herein. SZCJ does not assume any liability arising out of the application or use of any product described h

SOT-323 Tape and Reel

SOT-323 Embossed Carrier Tape

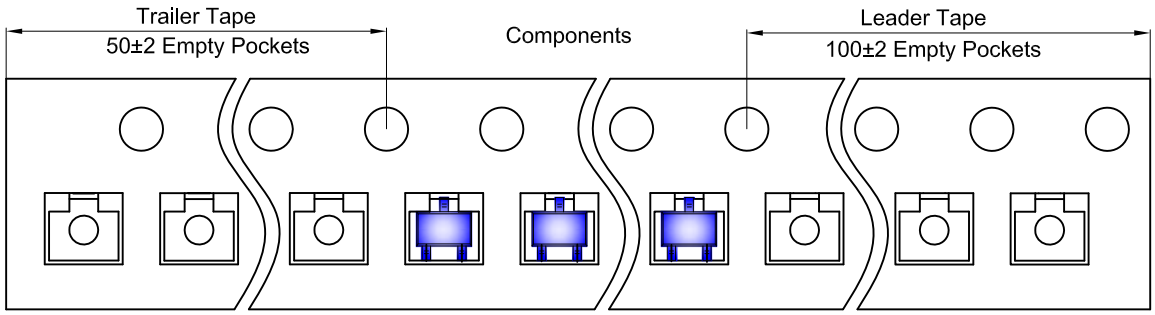


Packaging Description:

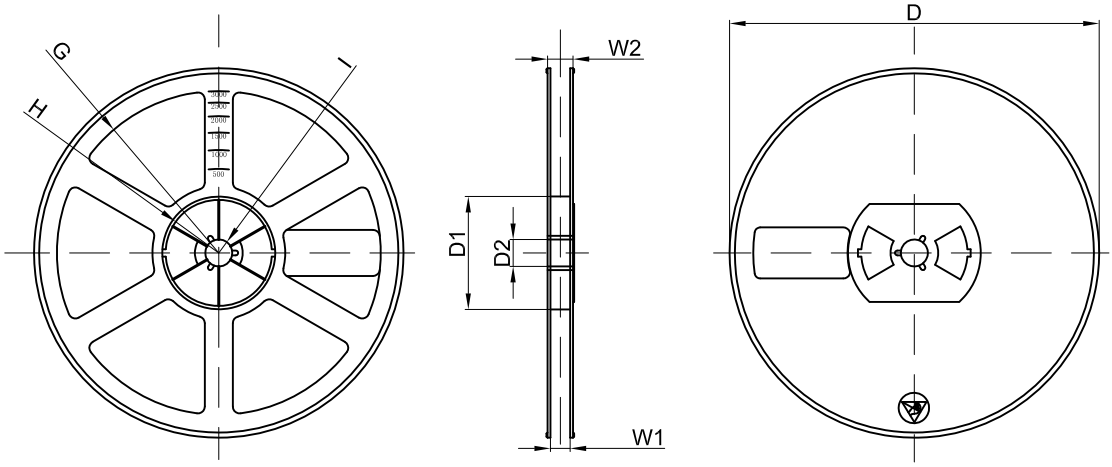
SOT-323 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

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	