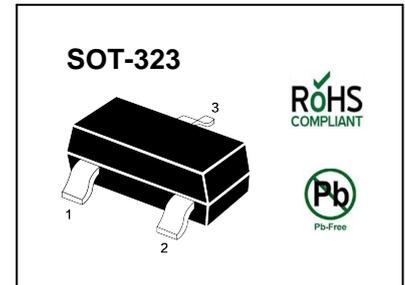
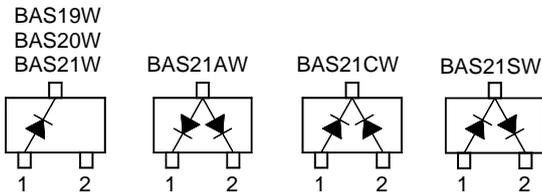


Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes



Marking Code:
 BAS19W-BAS21W: T3
 BAS21AW: F2
 BAS21CW: F3
 BAS21SW: F4

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

Parameter	Symbol	Value	Unit
Reverse Voltage	BAS19W BAS20W BAS21W	120 200 250	V
Continuous Forward Current	$I_{F(AV)}$	200	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	at $t = 1$ s at $t = 1$ μ s	0.5 2.5	A
Total Device Dissipation	P_{tot}	250	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150	$^\circ\text{C}$

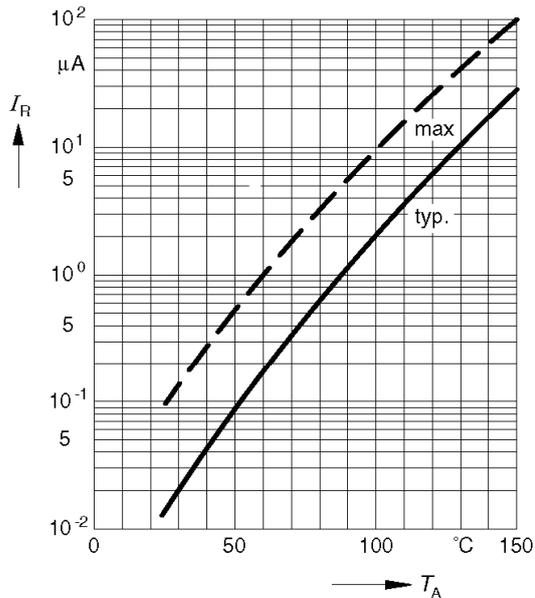
Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100$ μ A at $I_R = 100$ μ A at $I_R = 100$ μ A	BAS19W BAS20W BAS21W $V_{(BR)R}$	120 200 250	- - -	V
Forward Voltage at $I_F = 100$ mA at $I_F = 200$ mA	V_F	- -	1 1.25	V
Reverse Current at $V_R = 100$ V at $V_R = 150$ V at $V_R = 200$ V at $V_R = 100$ V, $T_j = 150^\circ\text{C}$ at $V_R = 150$ V, $T_j = 150^\circ\text{C}$ at $V_R = 200$ V, $T_j = 150^\circ\text{C}$	BAS19W BAS20W BAS21W I_R	- - - - - -	0.1 0.1 0.1 100 100 100	μ A
Total Capacitance at $V_R = 0$, $f = 1$ MHz	C_{tot}	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30$ mA, $I_{R(REC)} = 3$ mA, $R_L = 100$ Ω	t_{rr}	-	50	ns

Typical Characteristics

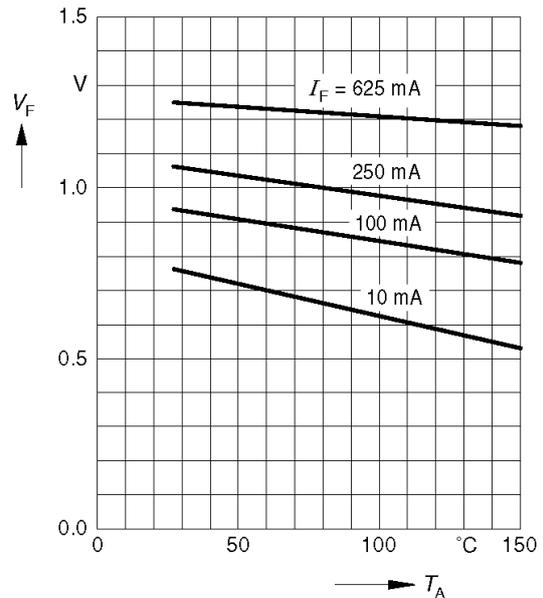
Reverse current $I_R = f(T_A)$

$V_R = 200V$

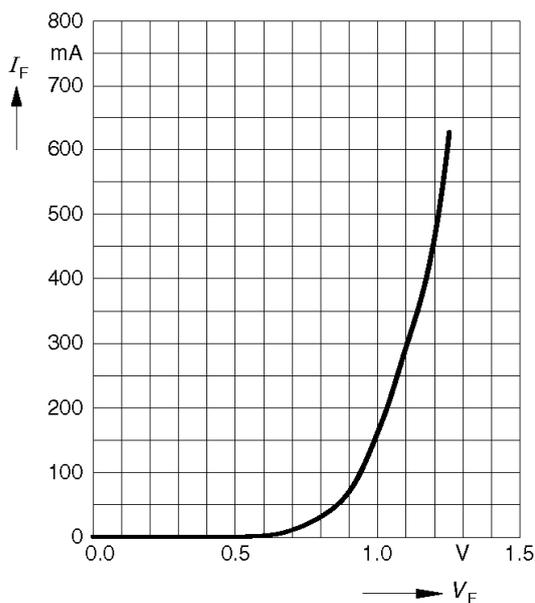


Forward Voltage $V_F = f(T_A)$

$I_F = \text{Parameter}$



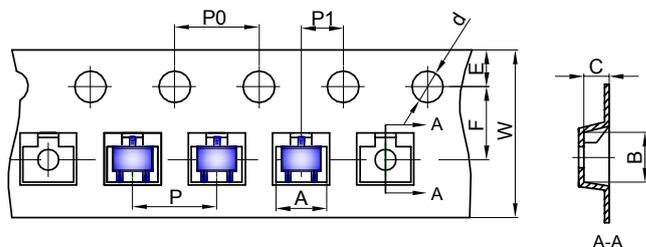
Forward current $I_F = f(V_F)$



SOT-323 Tape and Reel

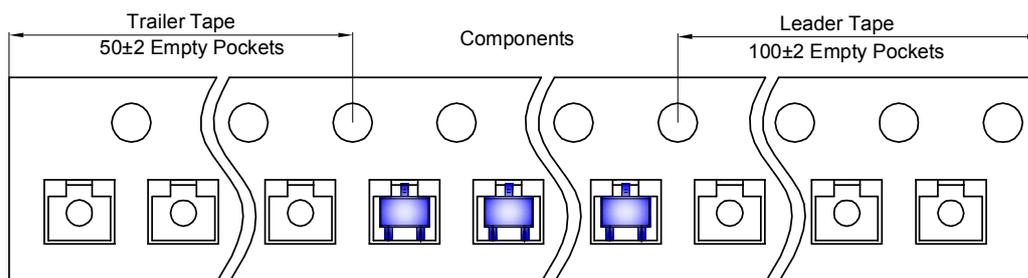
SOT-323 Tape and reel

SOT-323 Embossed Carrier Tape

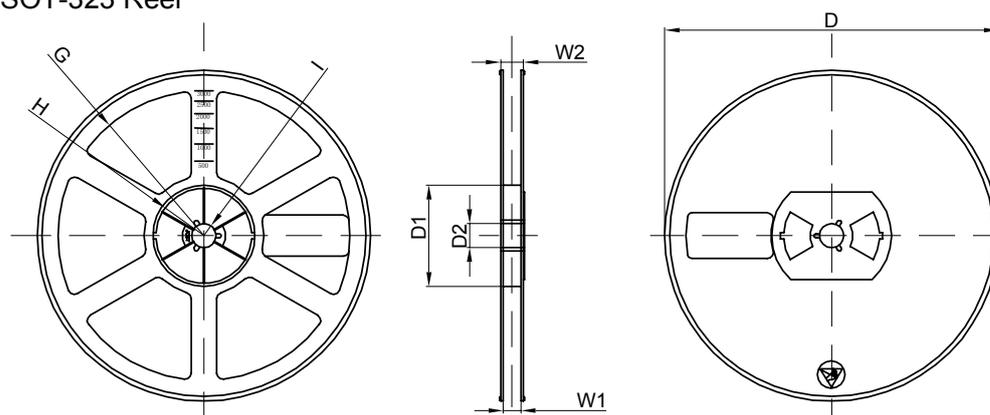


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-323	2.25	2.55	1.19	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOT-323 Tape Leader and Trailer

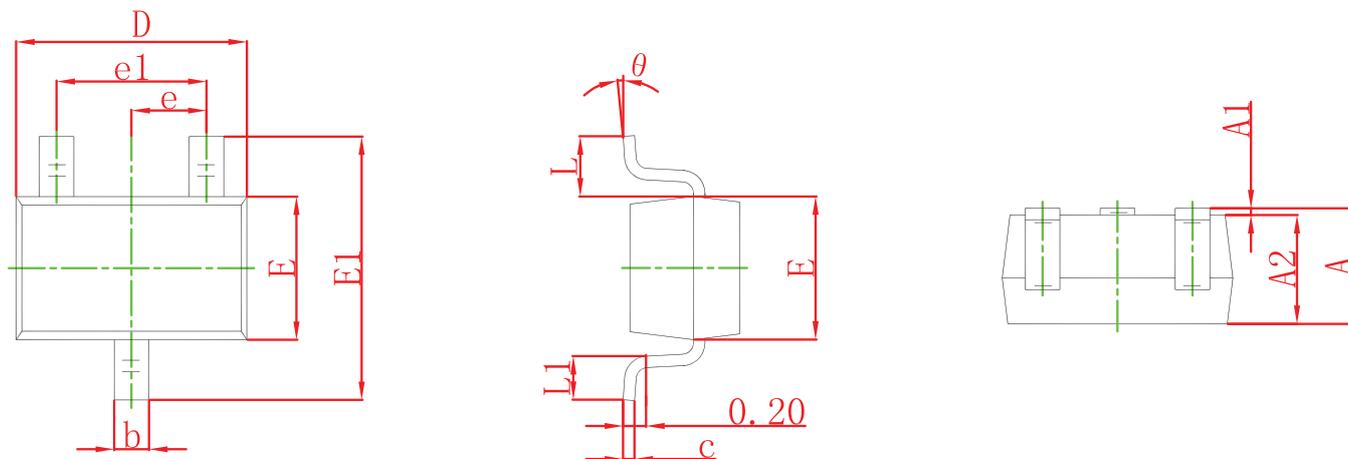


SOT-323 Reel



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	30,000 pcs	203×203×195	120,000 pcs	438×438×220	



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°

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