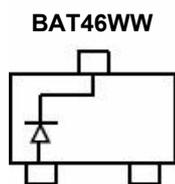
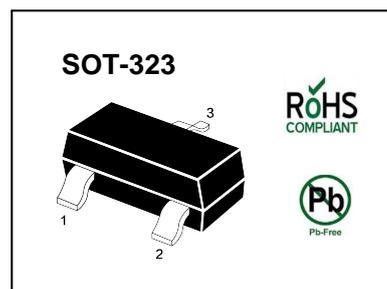
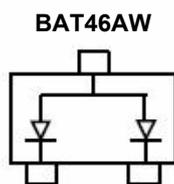


### FEATURES

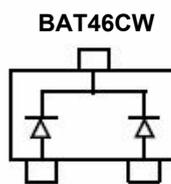
- High breakdown voltage
- Low forward voltage
- Surface mount device



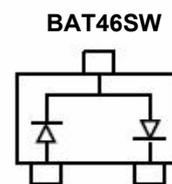
MARKING: S46



MARKING: A46



MARKING: C46



MARKING: B46

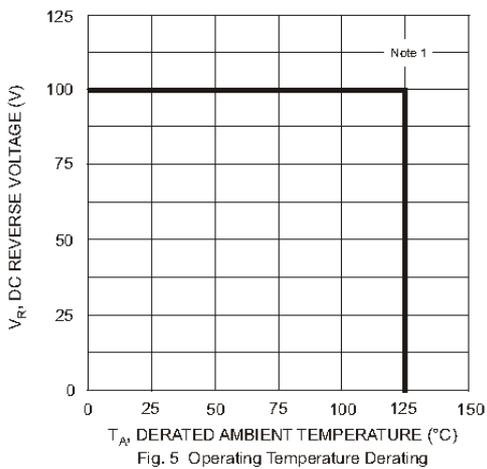
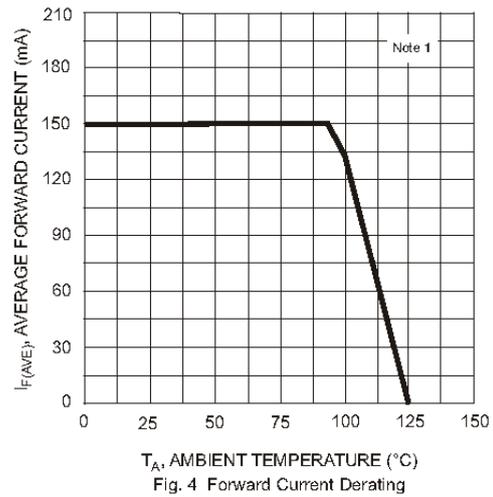
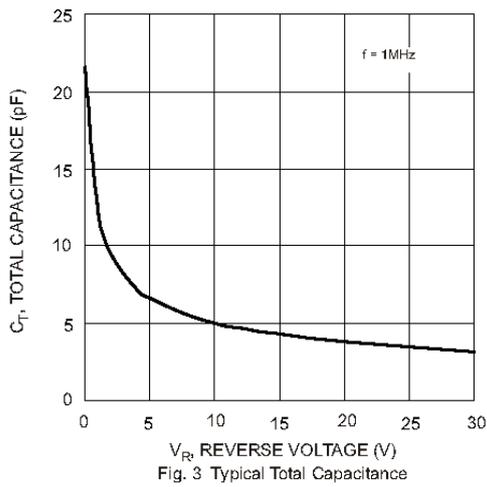
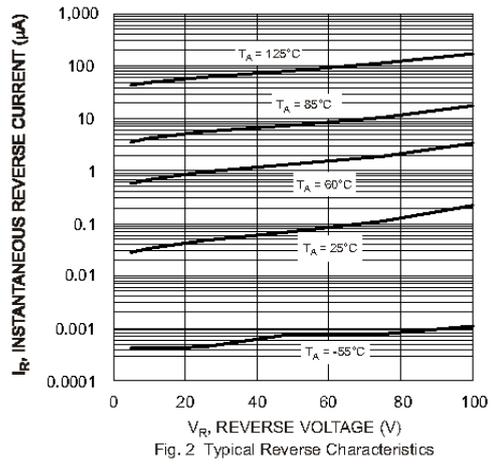
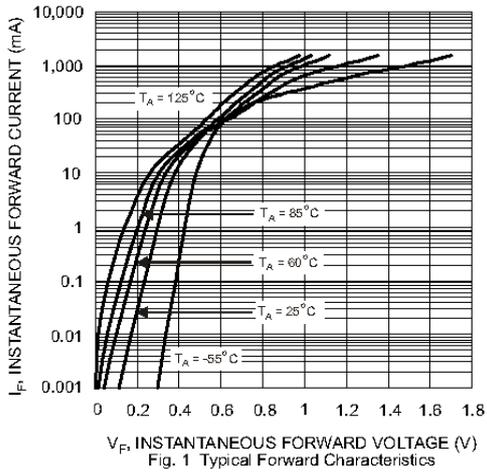
### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Continuous Forward Current	$I_{F(AV)}$	150	mA
Repetitive Peak Forward Current (at $t_p < 1\text{ s}$ )	$I_{FRM}$	350	mA
Surge Forward Current (at $t_p < 10\text{ ms}$ )	$I_{FSM}$	750	mA
Operating Temperature Range	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	100	-	-	V
Forward Voltage at $I_F = 0.1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 250\text{ mA}$	$V_F$	-	-	0.25 0.45 1	V
Reverse Current at $V_R = 1.5\text{ V}$ at $V_R = 10\text{ V}$ at $V_R = 50\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 1.5\text{ V}$ , $T_j = 60\text{ }^\circ\text{C}$ at $V_R = 10\text{ V}$ , $T_j = 60\text{ }^\circ\text{C}$ at $V_R = 50\text{ V}$ , $T_j = 60\text{ }^\circ\text{C}$ at $V_R = 75\text{ V}$ , $T_j = 60\text{ }^\circ\text{C}$	$I_R$	-	-	0.5 0.8 2 5 5 7.5 15 20	$\mu\text{A}$
Total Capacitance at $V_R = 0\text{ V}$ , $f = 1\text{ MHz}$ at $V_R = 1\text{ V}$ , $f = 1\text{ MHz}$	$C_{tot}$	-	20 12	-	pF

## Typical Characteristics

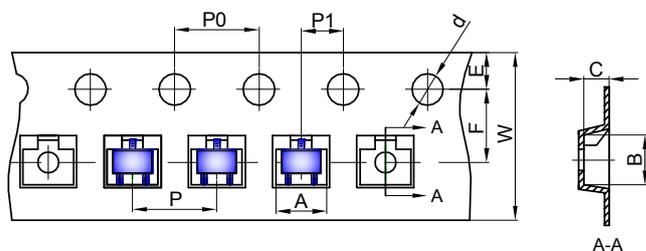


Note 1: Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.

### SOT-323 Tape and Reel

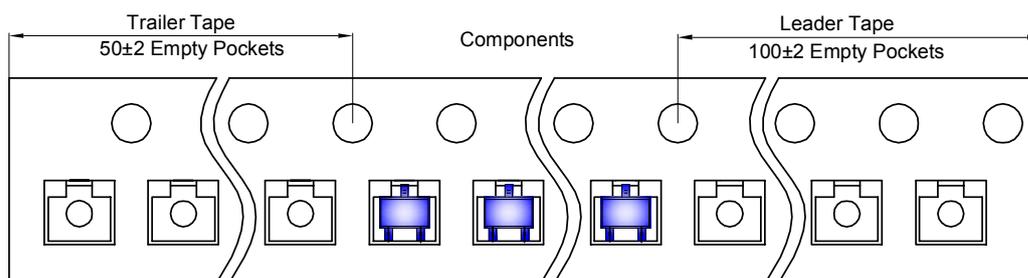
#### SOT-323 Tape and reel

SOT-323 Embossed Carrier Tape

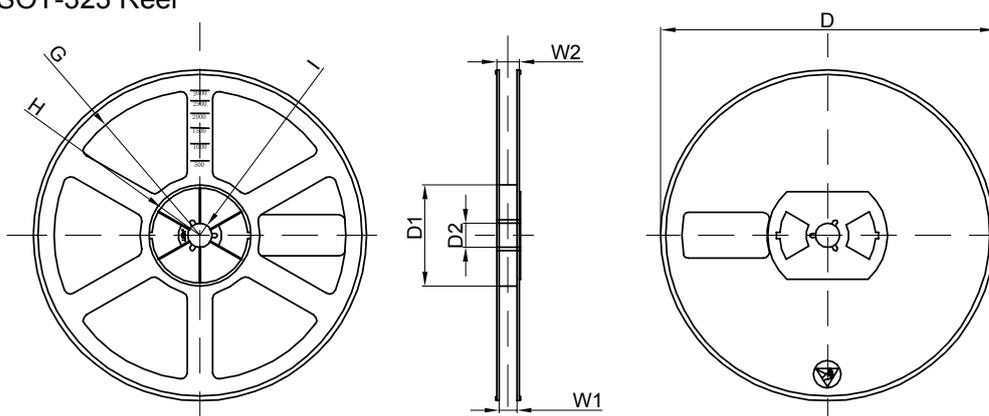


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-323	2.25	2.55	1.19	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

#### SOT-323 Tape Leader and Trailer

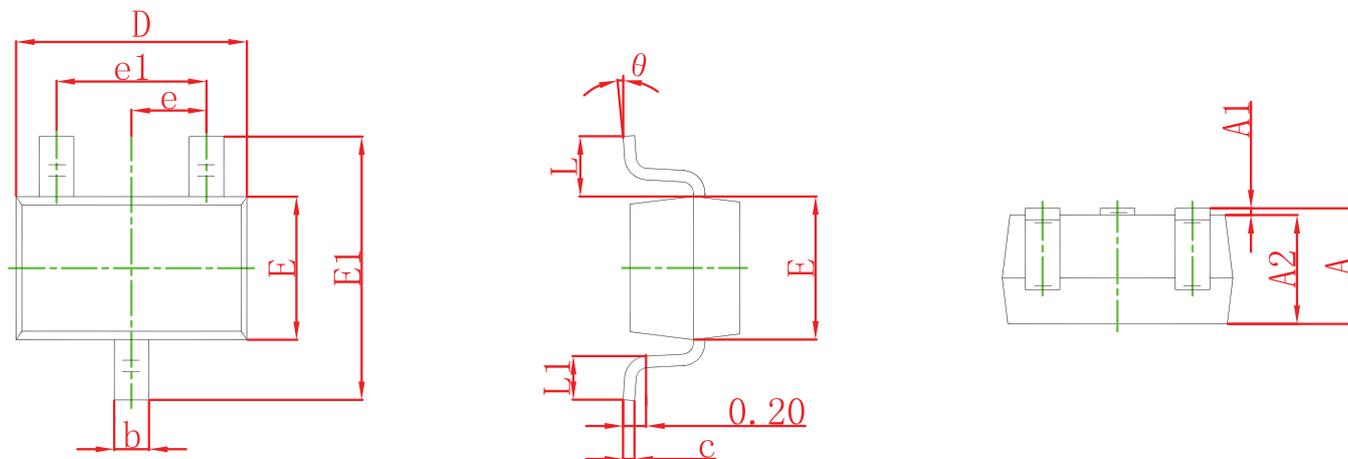


#### SOT-323 Reel



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
$\theta$	0°	8°	0°	8°

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