

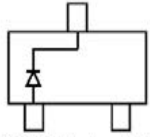
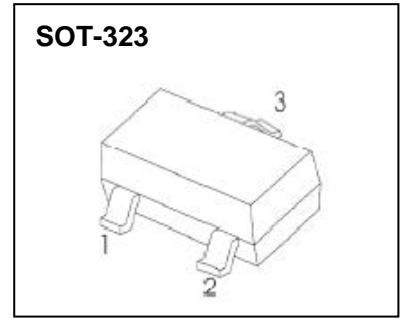


# BAT54W/AW/CW/SW

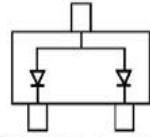
## SCHOTTKY BARRIER DIODE

### FEATURES

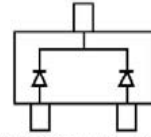
- Extremely Fast Switching Speed
- Low forward voltage



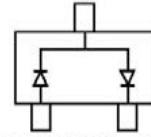
BAT54W Marking: KL5



BAT54AW Marking: KL6



BAT54CW Marking: KL7



BAT54SW Marking: KL8

### MARKING:

BAT54W	BAT54AW	BAT54CW	BAT54SW

### MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$ unless otherwise noted )

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	30	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
Forward Continuous Current	$I_{FM}$	200	mA
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	$I_{FSM}$	600	mA
Repetitive Peak Forward Current @ $t \leq 1\text{s}, \delta \leq 0.5$	$I_{FRM}$	300	mA
Power Dissipation	$P_D$	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	$T_j$	-40 ~ +125	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ +150	$^{\circ}\text{C}$

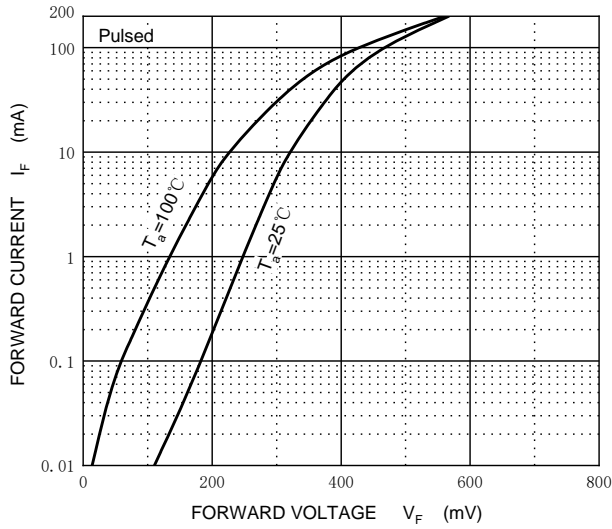
### ELECTRICAL CHARACTERISTICS( $T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	30			V
Reverse current	$I_R$	$V_R=25\text{V}$			2	$\mu\text{A}$
Forward voltage	$V_F$	$I_{F1}=0.1\text{mA}$			0.24	V
		$I_{F2}=1\text{mA}$			0.32	V
		$I_{F3}=10\text{mA}$			0.40	V
		$I_{F4}=30\text{mA}$			0.50	V
		$I_{F5}=100\text{mA}$			1	V
Diode capacitance	$C_D$	$V_R=1\text{V}, f=1\text{MHz}$			10	pF
Reverse recovery time	$t_{rr}$	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$			5	ns

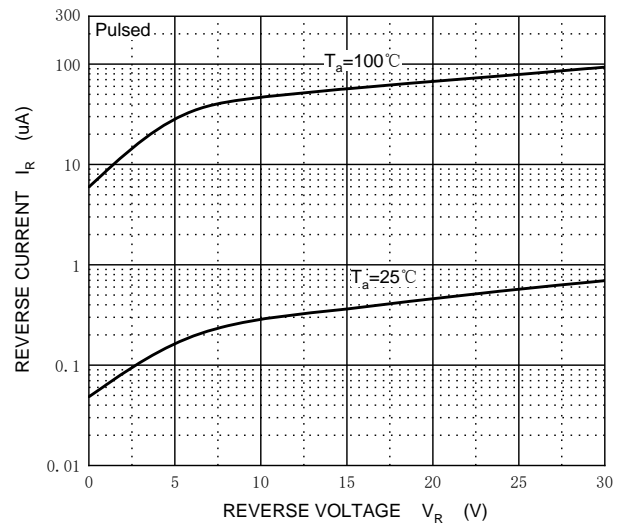


## Typical Characteristics

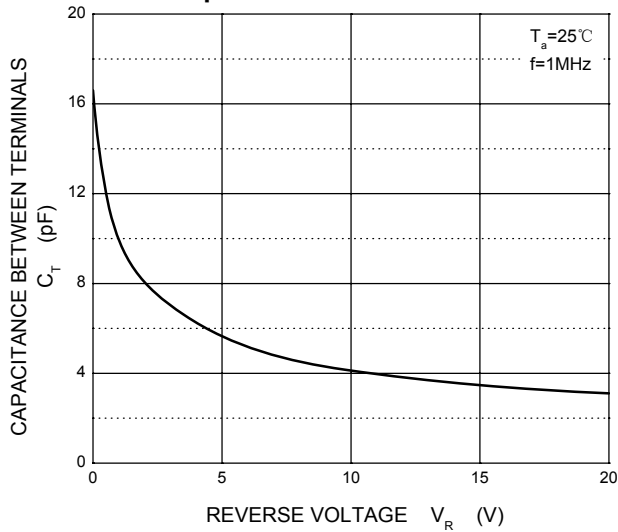
### Forward Characteristics



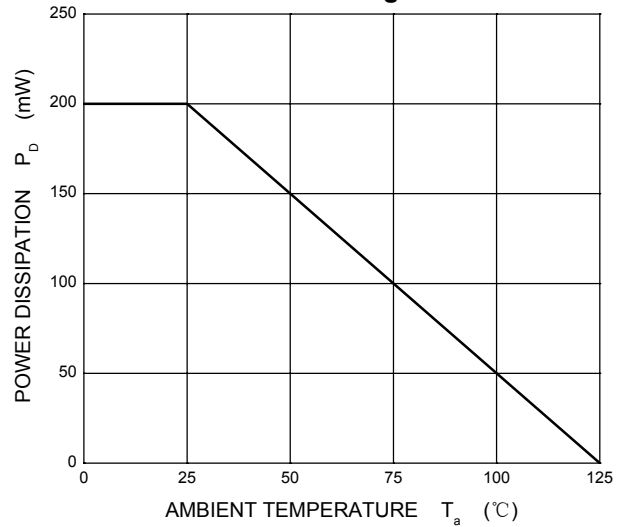
### Reverse Characteristics



### Capacitance Characteristics



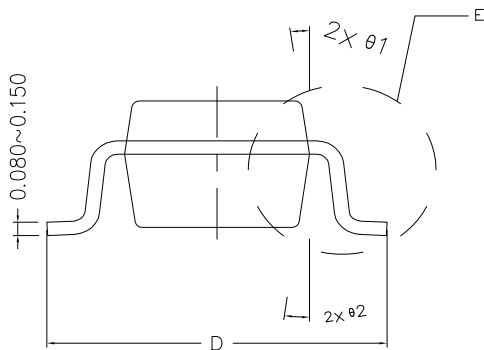
### Power Derating Curve



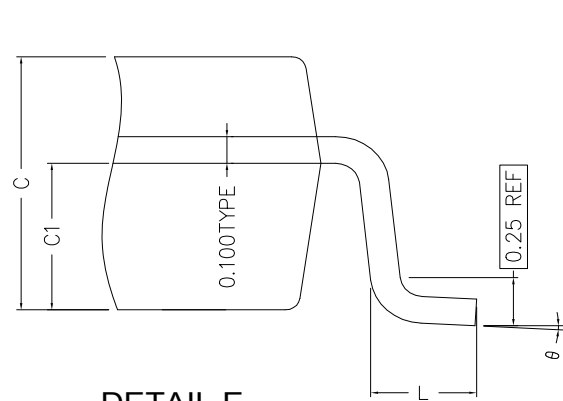


# BAT54W/AW/CW/SW

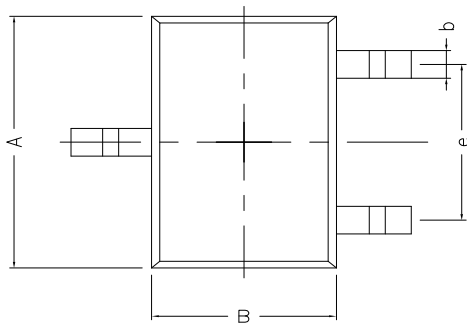
## SOT-323 Package Outline Dimensions



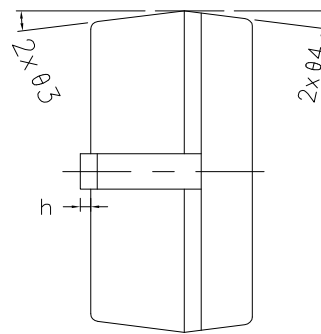
SIDE VIEW



DETAIL E



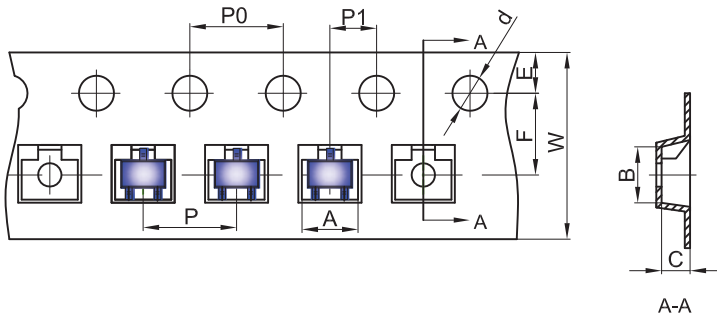
TOP VIEW



SIDE VIEW

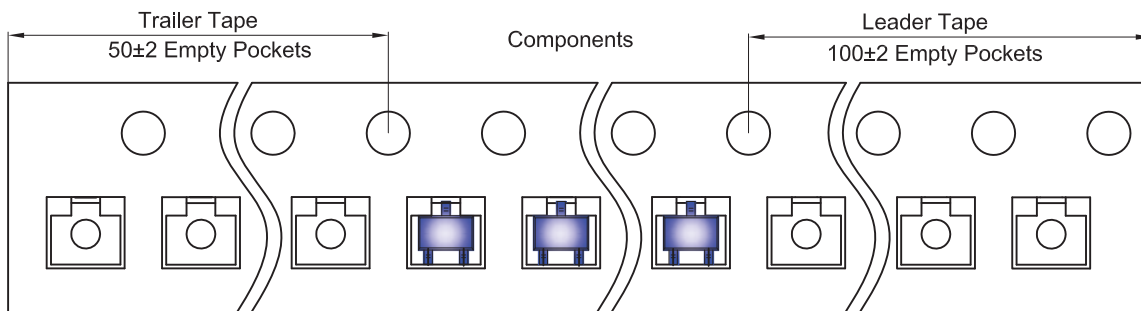
COMMON DIMENSIONS (UNITS OF MEASURE IS mm)			
	MIN	NORMAL	MAX
A	2.000	2.100	2.200
B	1.150	1.250	1.350
C	0.900	0.950	1.000
C1	0.500	0.550	0.600
D	2.100	2.300	2.500
L	0.220	0.360	0.500
b	0.200	0.250	0.400
h	0.020	0.050	0.100
e	1.300TYPE		
θ <sub>1</sub>	8° TYPE		
θ <sub>2</sub>	8° TYPE		
θ <sub>3</sub>	8° TYPE		
θ <sub>4</sub>	8° TYPE		
θ	0~8° TYPE		

## SOT-323 Embossed Carrier Tape

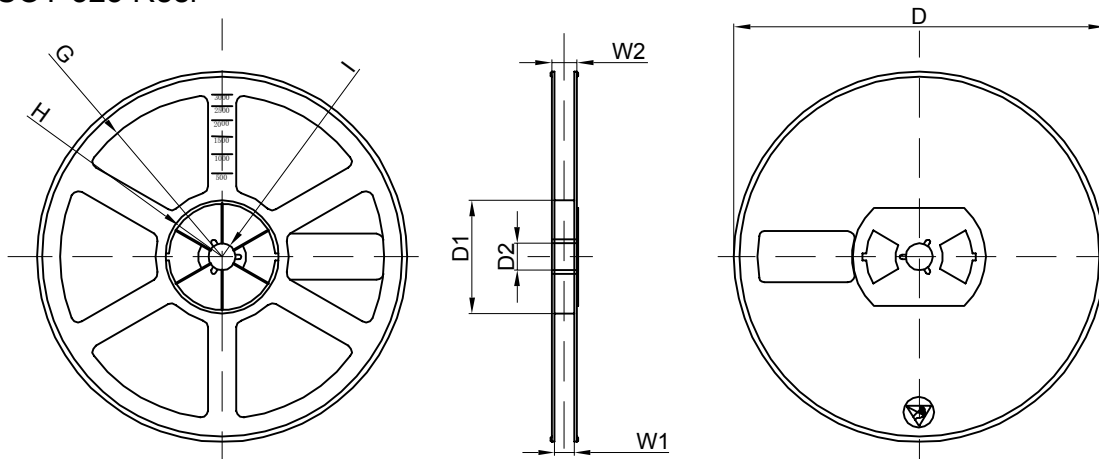


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-323	2.25	2.55	1.19	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

## 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	192x182x182	180,000 pcs	400x385x205	