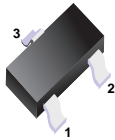


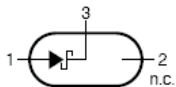


### ■ Features

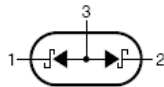
- Extremely Fast Switching Speed
- Low forward voltage



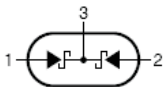
■ Simplified outline(SOT-323)



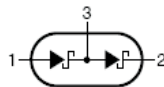
**BAT54W**



**BAT54AW**

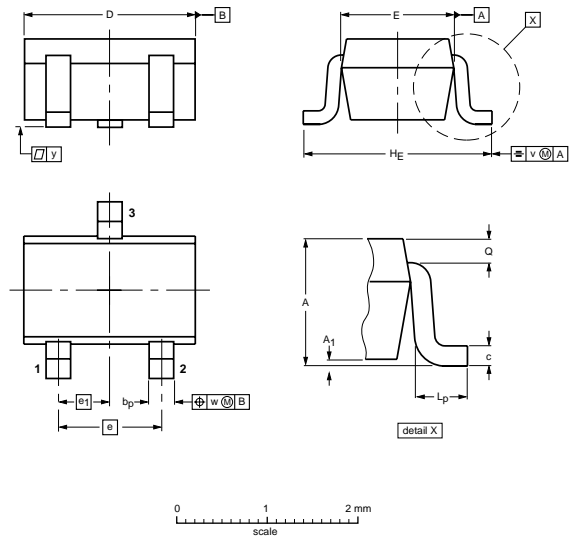


**BAT54CW**



**BAT54SW**

### SOT-323



DIMENSIONS (mm are the original dimensions)

UNIT	A	A <sub>1</sub> max	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	v	w
mm	1.1 0.8	0.1	0.4 0.3	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.23 0.13	0.2	0.2

### ■ Absolute Maximum Ratings T<sub>a</sub> = 25 °C

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V <sub>R</sub> RM	30	V
Working Peak Reverse Voltage	V <sub>R</sub> WM		
DC Blocking Voltage	V <sub>R</sub>		
Forward Continuous Current	I <sub>F</sub> M	200	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I <sub>F</sub> SM	600	
Repetitive Peak Forward Current @ t ≤ 1s, δ ≤ 0.5	I <sub>F</sub> RM	300	
Power Dissipation	P <sub>D</sub>	200	mW
Thermal Resistance Junction to Ambient	R <sub>θ</sub> JA	500	°C/W
Junction Temperature	T <sub>J</sub>	125	°C
Storage Temperature range	T <sub>stg</sub>	-55 to 150	

# BAT54W/AW/CW/SW

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	$V_{(BR)}$	$I_R = 100 \mu\text{A}$	30			V
Forward Voltage	$V_{F1}$	$I_F = 0.1 \text{ mA}$			0.24	
	$V_{F2}$	$I_F = 1 \text{ mA}$			0.32	
	$V_{F3}$	$I_F = 10 \text{ mA}$			0.40	
	$V_{F4}$	$I_F = 30 \text{ mA}$			0.50	
	$V_{F5}$	$I_F = 100 \text{ mA}$			1	
Leakage Current	$I_R$	$V_R = 25 \text{ V}$			2	$\mu\text{A}$
Diode Capacitance	$C_D$	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$			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

## ■ Marking

Type	BAT54W	BAT54AW	BAT54CW	BAT54SW
Marking	KL5 or L4	KL6 or L42	KL7 or L43	KL8 or L44

RATING AND CHARACTERISTIC CURVES (BAT54W/AW/CW/SW)

