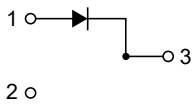
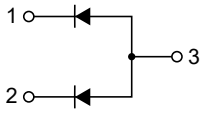
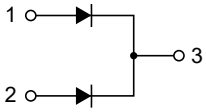
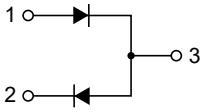
UMW BAT54xW

1.Features

- Extremely Fast Switching Speed
- Low forward voltage
- Simplified outline(SOT-323)

2.Pinning Information

BAT54W	BAT54AW	BAT54CW	BAT54SW
			

3.Absolute Maximum Ratings T_A=25°C

Parameter	Symbol	Value	Units
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=8.3ms	I_{FSM}	600	mA
Repetitive Peak Forward Current @ t≤1s,δ≤0.5	I_{FRM}	300	mA
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	°C/W
Junction Temperature	T_J	125	°C
Storage Temperature range	T_{STG}	-55 to 150	°C

4.Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Max	Units
Reverse voltage	$V_{(BR)}$	I_R=100μA	30		V
Forward voltage	V_F	I_{F1}=0.1mA		0.24	V
		I_{F2}=1mA		0.32	V
		I_{F3}=10mA		0.4	V
		I_{F4}=30mA		0.5	V
		I_{F5}=100mA		1	V
Leakage Current	I_R	V_R=25V		2	μA
Diode capacitance	C_D	V_R=0V, f=1MHz		10	pF
Reverse recovery time	t_{rr}	I_F=I_R=10mA, I_{rr}=0.1×I_R, R_L=100Ω		5	ns

5.Typical Characteristic

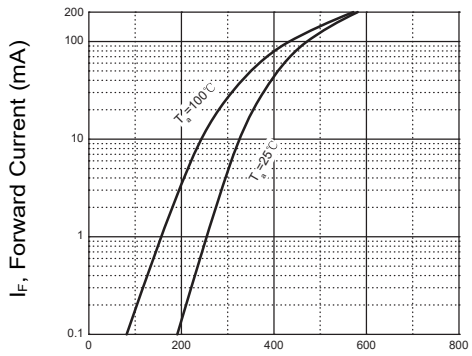


Figure 1: Forward Characteristics

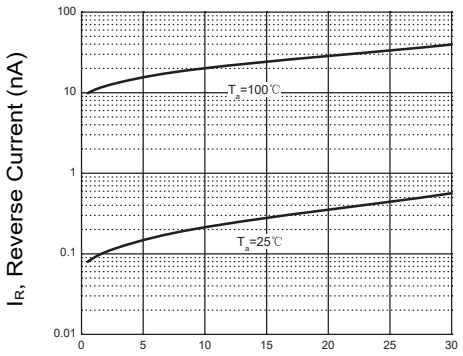


Figure 2: Reverse Characteristics

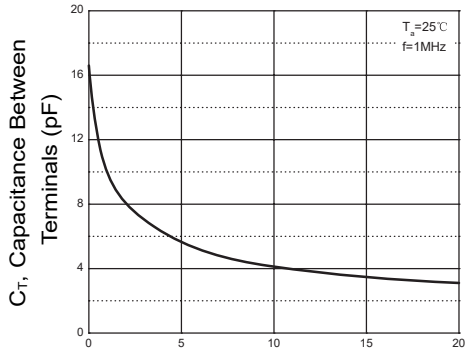


Figure 3: Capacitance Characteristics

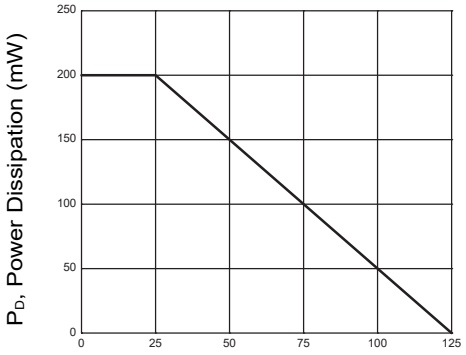
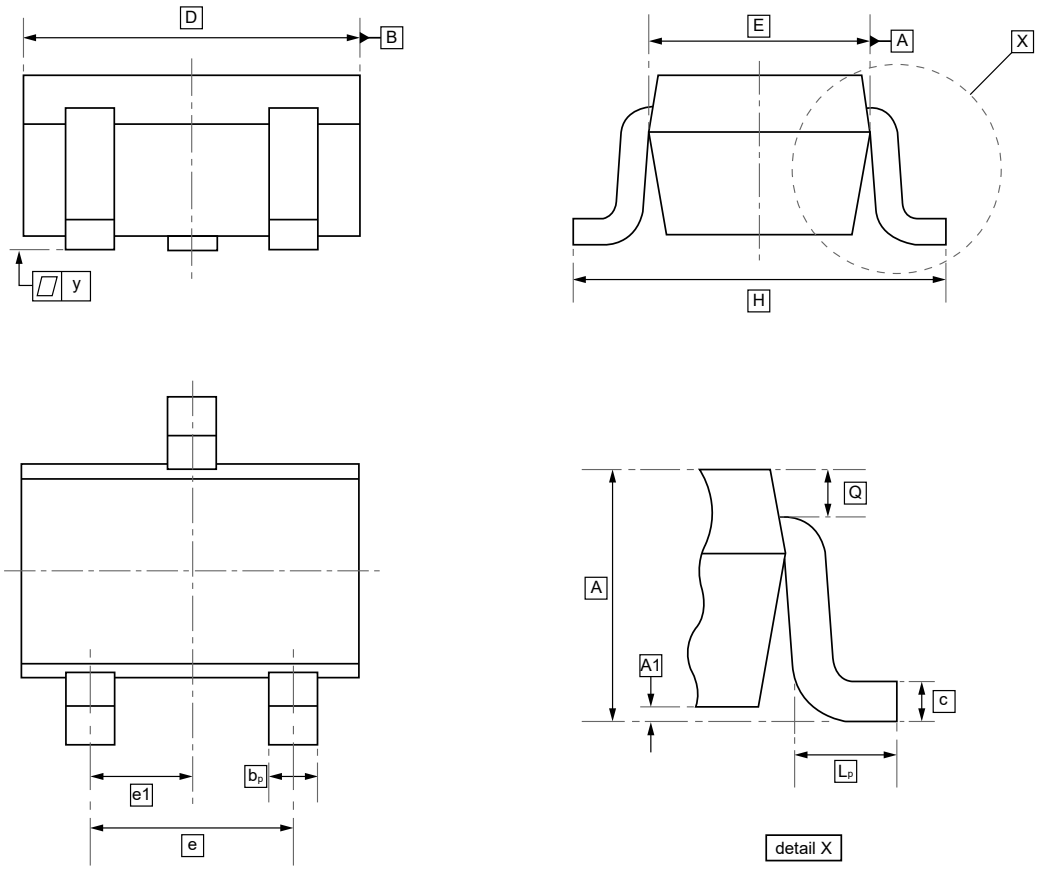


Figure 4: Power Derating Curve

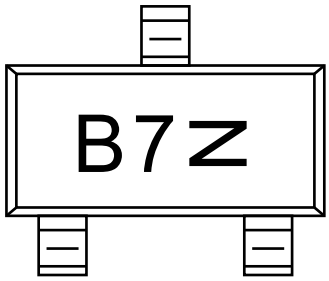
6.SOT-323 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	b_p	c	D	E	e	e1	H	L_p	Q
Min	0.8	0.1	0.3	0.10	1.8	1.15	1.3	0.65	2.0	0.15	0.13
Max	1.1		0.4	0.25	2.3	1.35			2.55	0.45	0.23

7.Ordering Information



Order Code	Marking	Package	Base QTY	Delivery Mode
UMW BAT54W	B4	SOT-323	3000	Tape and reel
UMW BAT54AW	B7	SOT-323	3000	Tape and reel
UMW BAT54CW	5C	SOT-323	3000	Tape and reel
UMW BAT54SW	B8	SOT-323	3000	Tape and reel

8.Disclaimer

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