

BAT54W-BAT54SW

Schottky Diode

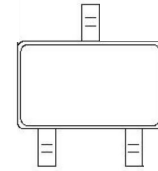
FEATURE

- Epoxy meets UL 94 V-0 flammability rating
- Small Outline Surface Mount Package
- Low Current Leakage
- For high-speed switching applications

MARKING:

Device	Device Marking	Type	Pin Configuration
BAT54W	KL5	Single	Figure1
BAT54AW	KL6	Dual	Figure2
BAT54CW	KL7	Dual	Figure3
BAT54SW	KL8	Dual	Figure4

SOT-323



Schematic diagram

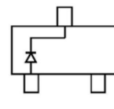


Figure1:BAT54W

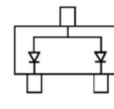


Figure2:BAT54AW

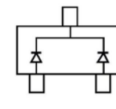


Figure3:BAT54CW

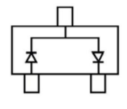


Figure4:BAT54SW

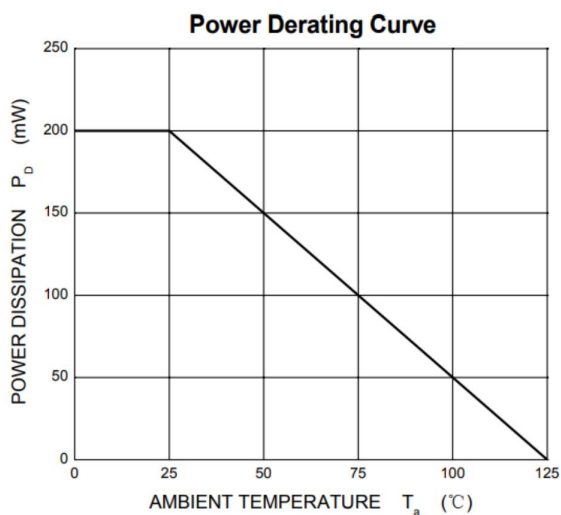
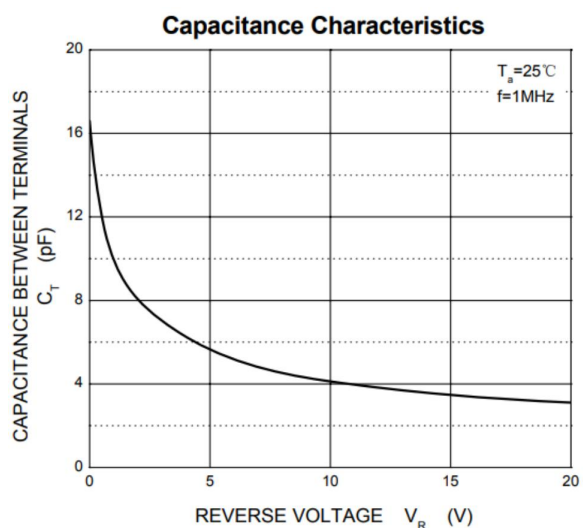
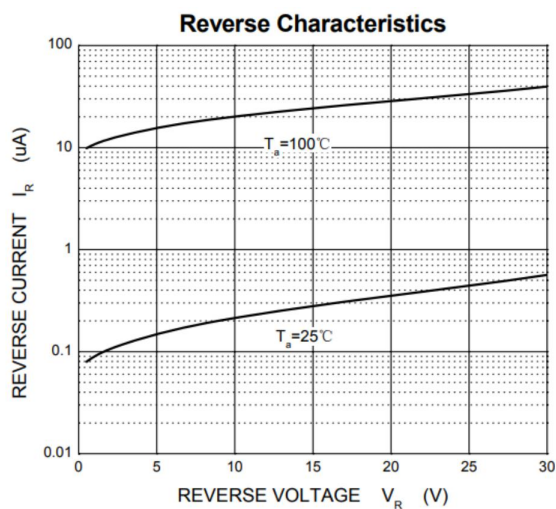
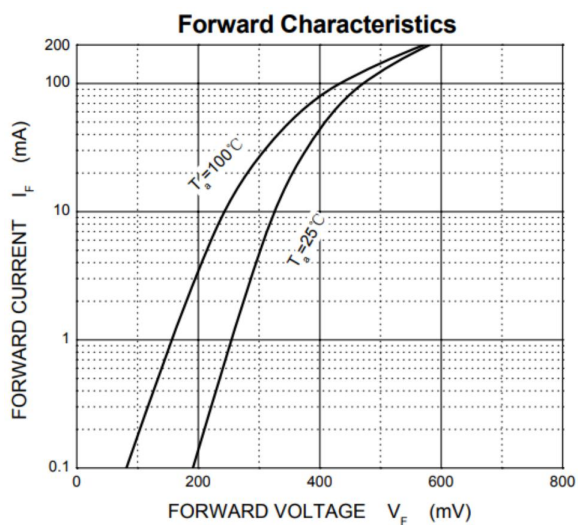
ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}	30	V
DC Blocking Voltage	V_R	30	V
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	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_j	125	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55~+150	$^{\circ}\text{C}$

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

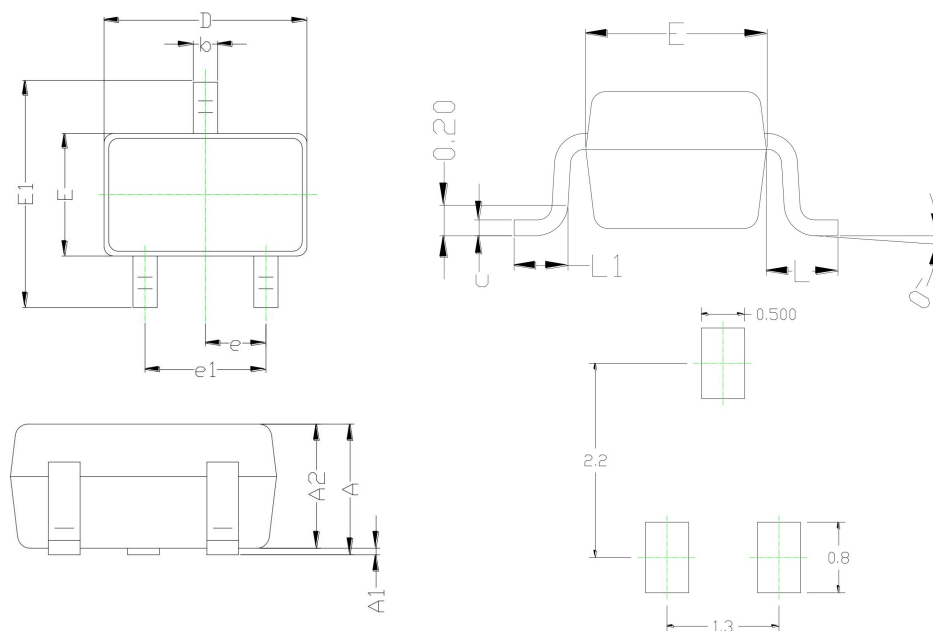
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Reverse Voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	30			V
Reverse Current	I_R	$V_R=25\text{V}$			2	μA
		$I_F=0.1\text{mA}$			0.24	V
Forward Voltage	V_F	$I_F=1\text{mA}$			0.32	V
		$I_F=10\text{mA}$			0.4	V
		$I_F=30\text{mA}$			0.5	V
		$I_F=100\text{mA}$			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



SOT-323 Package Information

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
BAT54W-BAT54SW	SOT323	Tape & Reel 3000pcs/7"Reel	8mm	4mm	Conductive	



Symbol	Dimensions In Millimeters		
	Min	Typ	Max
A	0.900	-	1.000
A1	0.00	-	0.100
A2	0.900	-	1.000
b	0.200	-	0.400
c	0.080	-	0.150
D	2.000	-	2.200
E	1.150	-	1.350
E1	2.150	-	2.450
e	0.650 TYP.		
e1	1.200	-	1.400
L	0.525 R		
L1	0.260	-	0.450
e	0°	-	8°

1.Unit mm