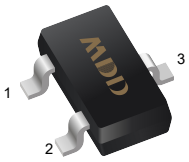
SOT-323 Plastic-Encapsulate Diodes

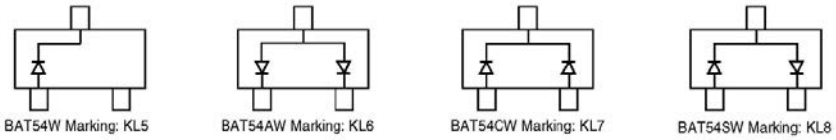
BAT54W/AW/CW/SW SCHOTTKY BARRIER DIODE

SOT-323

FEATURES

- Extremely Fast Switching Speed
- Low Forward Voltage Drop
- High Current Capability





MARKING:

BAT54W	BAT54AW	BAT54CW	BAT54SW
KL5	KL6	KL7	KL8

Maximum Ratings (Ta=25℃ unless otherwise noted)

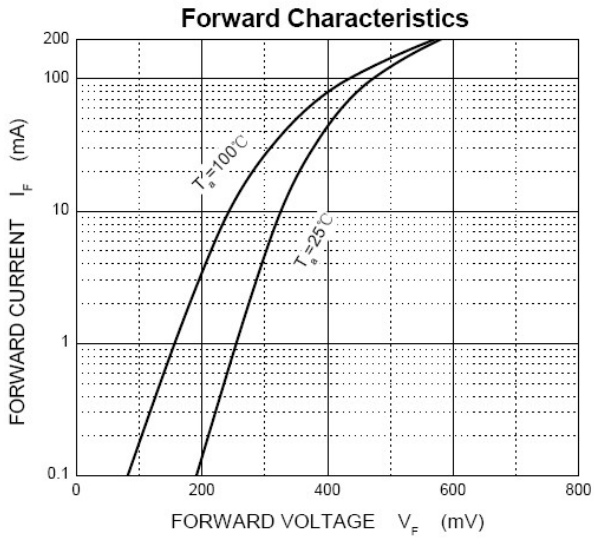
Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage Working Peak Reverse Voltage Maximum DC blocking voltage	V_{RRM} V_{RWM} V_{DC}	30	V
Forward Continuous Current	I_{FM}	200	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I_{FSM}	600	mA
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\Theta JA}$	500	℃/W
Junction Temperature	T_j	125	℃
Storage Temperature	T_{stg}	-55~+150	℃

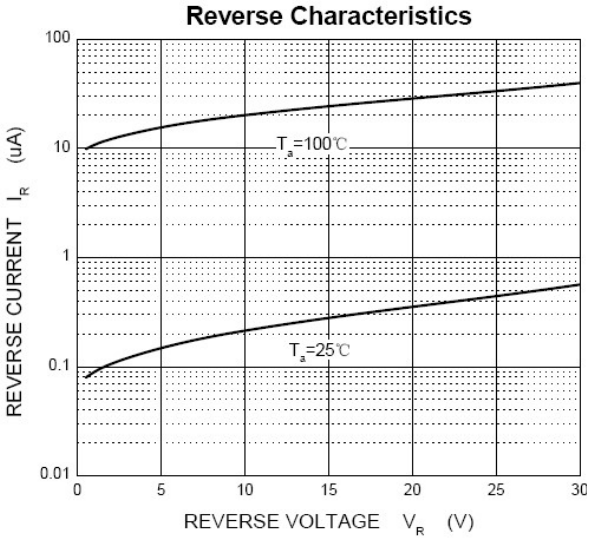
ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise specified)

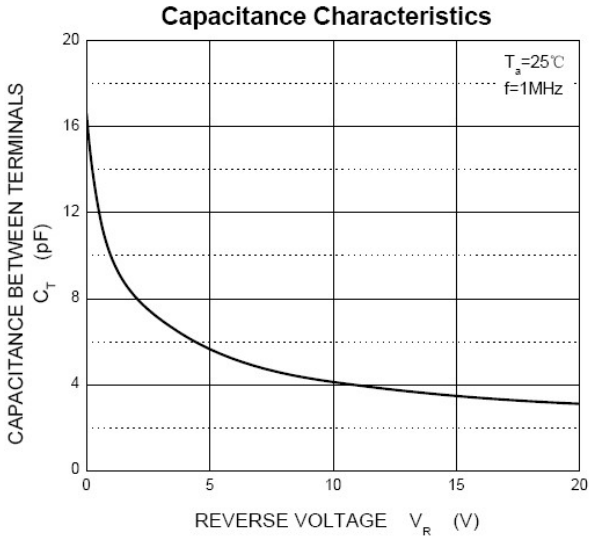
Parameter	Symbol	Min	Typ	Max	Unit	Test conditions
Reverse voltage	$V_{(BR)}$	30			V	I_R=100μA
Forward voltage	V_F			0.24	V	I_{F1}=0.1mA
				0.32	V	I_{F2}=1mA
				0.40	V	I_{F3}=10mA
				0.50	V	I_{F4}=30mA
				1	V	I_{F5}=100mA
Reverse current	I_R			2	μA	V_R=25V
Type junction capacitance	C_j			10	pF	V_R=1V,f=1MHz
Reverse recovery time	t_{rr}			5	ns	I_F=I_R=10mA Irr=0.1×I_R,R_L=100Ω

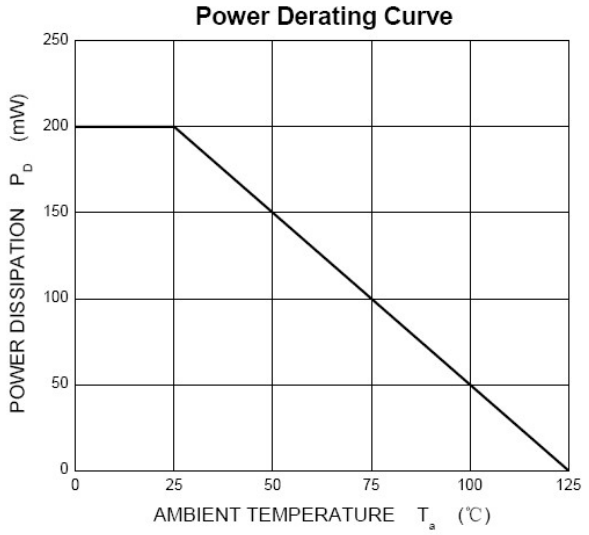
The above data are for reference only.

Typical Characteristics



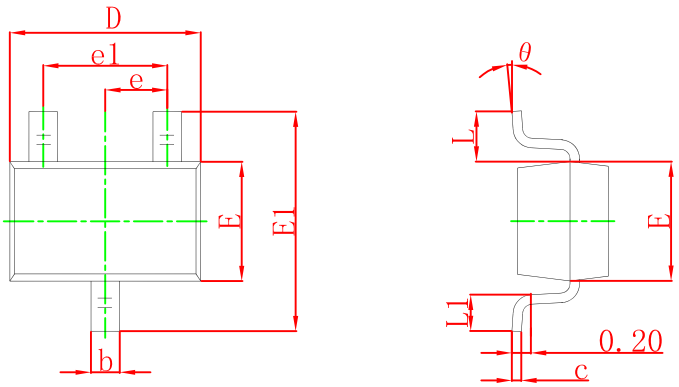


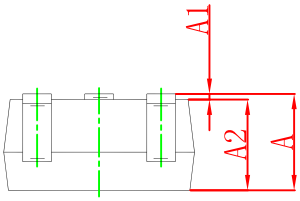




Outlitne Drawing

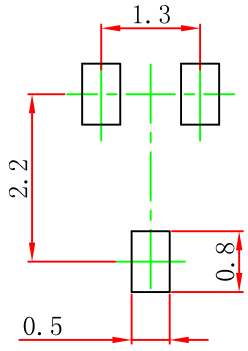
SOT-323 Package Outline Dimensions





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
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.