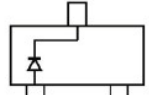
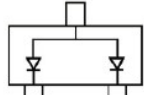
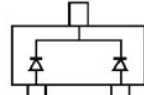


Plastic-Encapsulate Schottky Barrier Diode


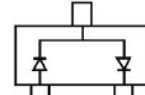
BAT54W Marking: KL5



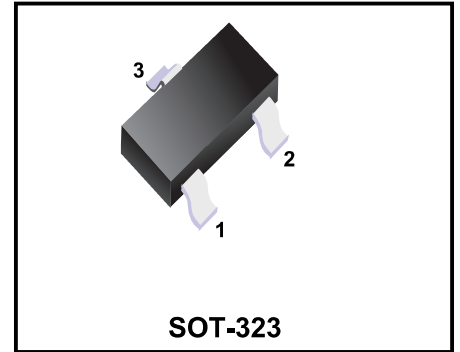
BAT54AW Marking: KL6



BAT54CW Marking: KL7



BAT54SW Marking: KL8


FEATURE

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

Mechanical Data

- ◆ SOT-323 Small Outline Plastic Package
- ◆ Epoxy UL: 94V-0
- ◆ Mounting Position: Any

Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

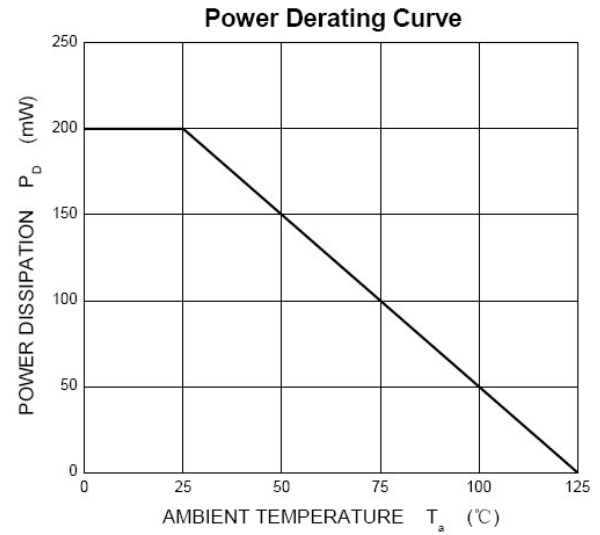
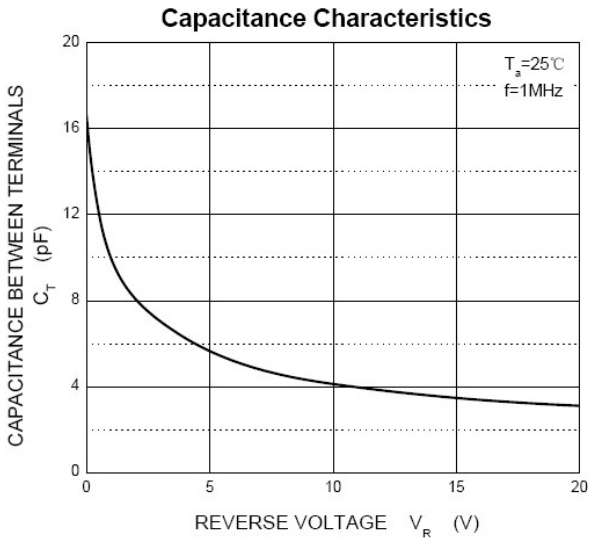
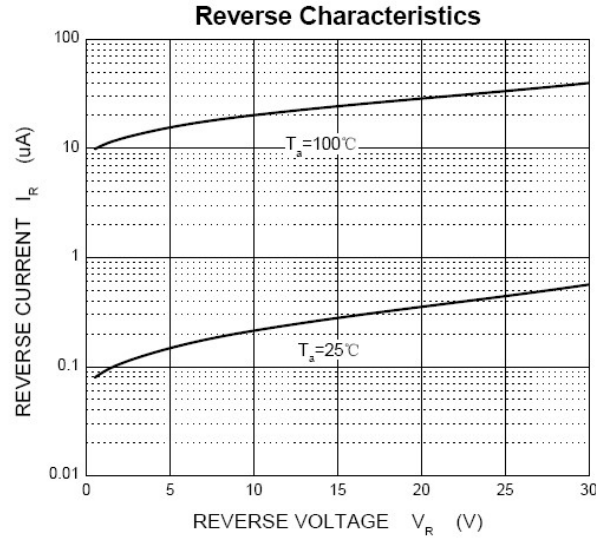
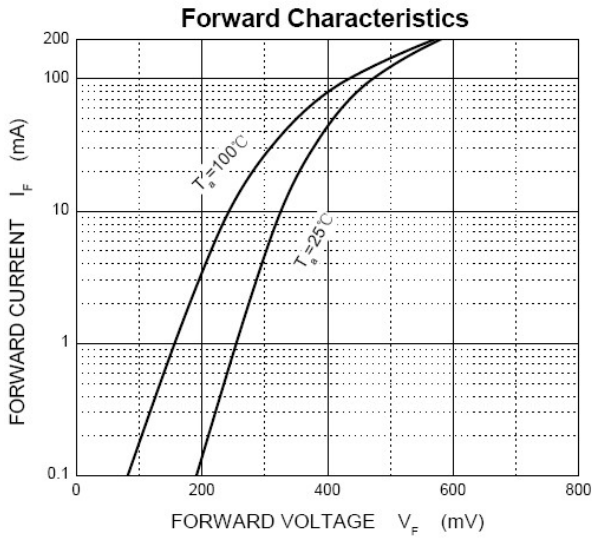
Parameters	Symbol	Value	Units
Maximum repetitive peak reverse voltage	V_{RRM}	30	V
Working Peak Reverse voltage	V_{RWM}	30	V
Maximum DC blocking voltage	V_{DC}	30	V
Maximum average forward rectified current	I_{FM}	200	mA
Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	600	mA
Typical thermal resistance	$R_{\theta JA}$	500	°C/W
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	125	°C
Storage temperature range	T_{STG}	-50-+150	°C

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

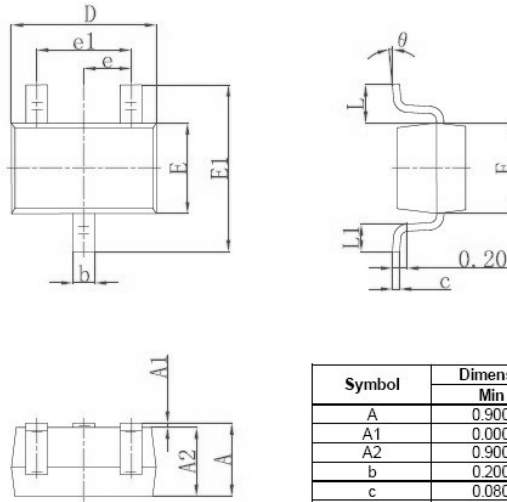
Parameters	Symbol	Test Conditions	Min	Typ	Max	Units
Maximum forward voltage	V_{F1}	$I_F = 0.1mA$			240	mV
	V_{F2}	$I_F = 1.0mA$			320	
	V_{F3}	$I_F = 10mA$			400	
	V_{F4}	$I_F = 30mA$			500	
	V_{F5}	$I_F = 100mA$			1000	
Maximum reverse breakdown voltage	V_R	$I_R = 100\mu A$	30			V
Maximum reverse current	I_R	$V_R = 25V$			2.0	uA
Type junction capacitance	C_j	$V_R = 1.0V, f = 1MHz$			10	pF
Reverse Recovery time	t_{rr}	$I_F = I_R = 10mA, I_{rr} = 0.1X I_R, R_L = 100\Omega$			5	ns

Typical Characteristics



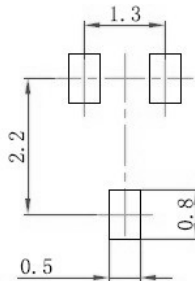
Package Outline

SOT-323



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°

Precautions: PCB Design(Recommended land dimensions for SOT-323 diode. Electrode patterns for PCBs)



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

Summary of Packing Options

Package	Package Description	Packing Quantity	Industry Standard
SOT-323	Tape/Reel, 7" reel	3000	EIA-481-1