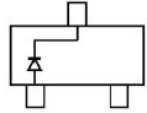
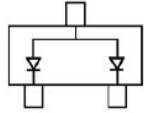
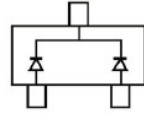


Plastic-Encapsulate Schottky Barrier Diode


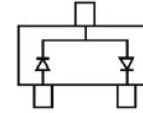
BAT54W Marking: KL5



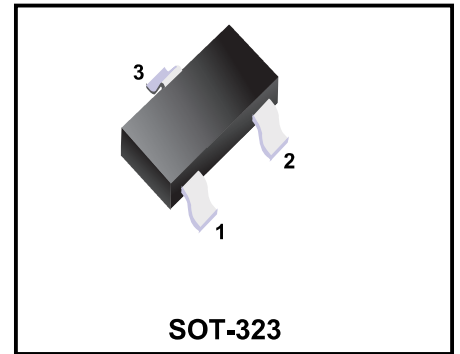
BAT54AW Marking: KL6



BAT54CW Marking: KL7



BAT54SW Marking: KL8


SOT-323
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

Marking Code	
BAT54W	KL5
BAT54AW	KL6
BAT54CW	KL7
BAT54SW	KL8

Maximum Ratings & Thermal Characteristics

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

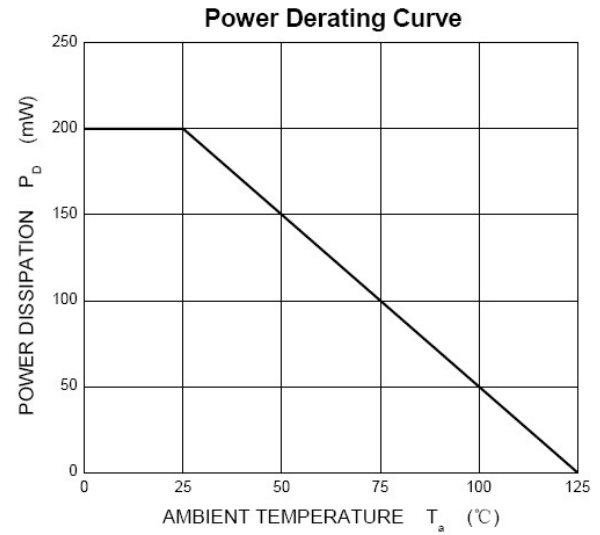
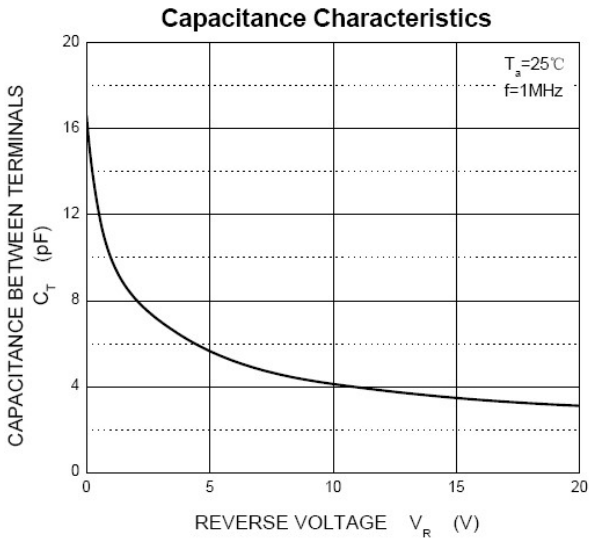
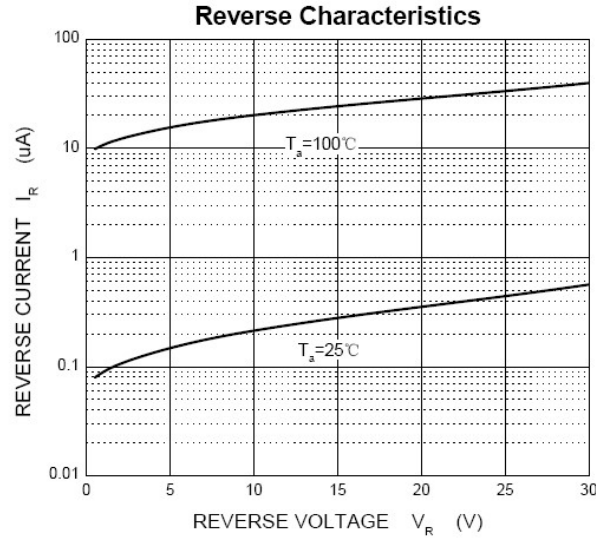
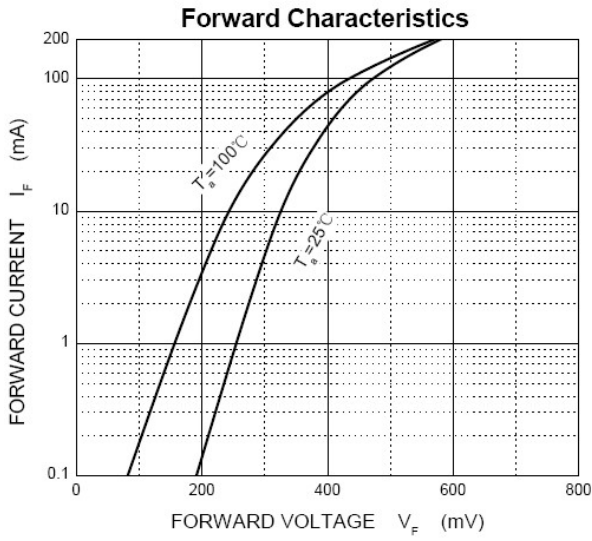
Parameters	Symbol	Value	Units
Maximum repetitive peak reverse voltage	V_{RRM}	30	V
Working Peak Reverse voltage	V_{RWM}	30	V
Maximum DC blocking voltage	V_{DC}	30	V
Maximum average forward rectified current	I_{FM}	200	mA
Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	600	mA
Typical thermal 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	trr	$I_F=I_R=10mA, I_{rr}=0.1X I_R, R_L=100\Omega$			5	ns

Typical Characteristics



Ordering information

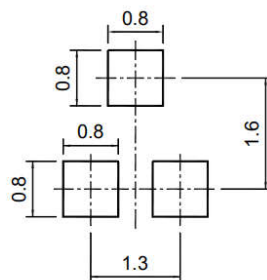
Package	Packing Description	Base Quantity	Packing Quantity
SOT-323	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-323

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	0.1		4	
bp	0.3	0.4	12	16
C	0.10	0.25	4	10
D	1.8	2.2	71	87
E	1.15	1.35	45	53
E	1.3		51	
E1	0.65		26	
HE	2.0	2.2	79	87
Lp	0.15	0.45	6	18
Q	0.13	0.23	5.1	9
v	0.2		8	
W	0.2		8	

The recommended mounting pad size



Disclaimer

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