

SOT-323 Plastic-Encapsulate Schottky Barrier Diodes



RoHS
COMPLIANT



Marking:

BAT54W : KL5
 BAT54AW : KL6
 BAT54CW : KL7
 BAT54SW : KL8

SOT-323

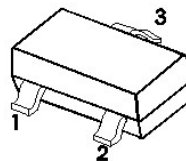
Features

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

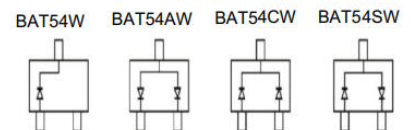
Applications

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

Pin definition



Equivalent circuit

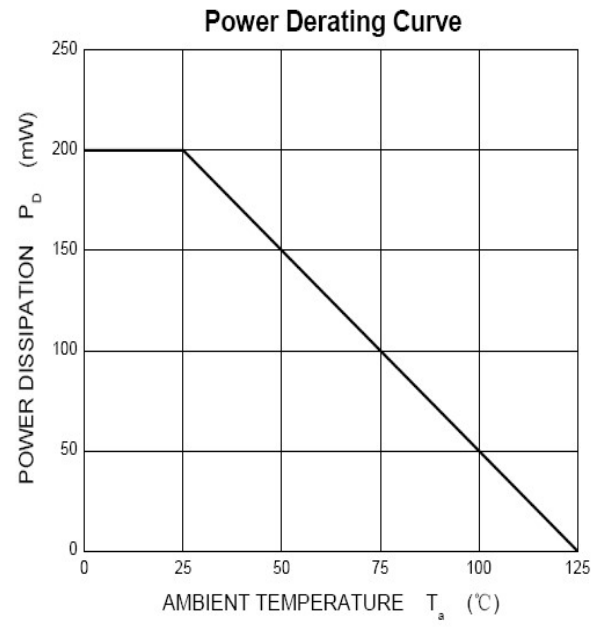
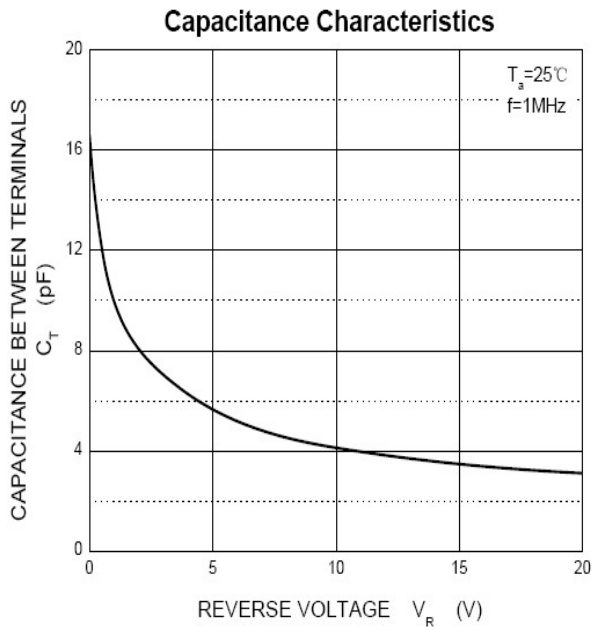
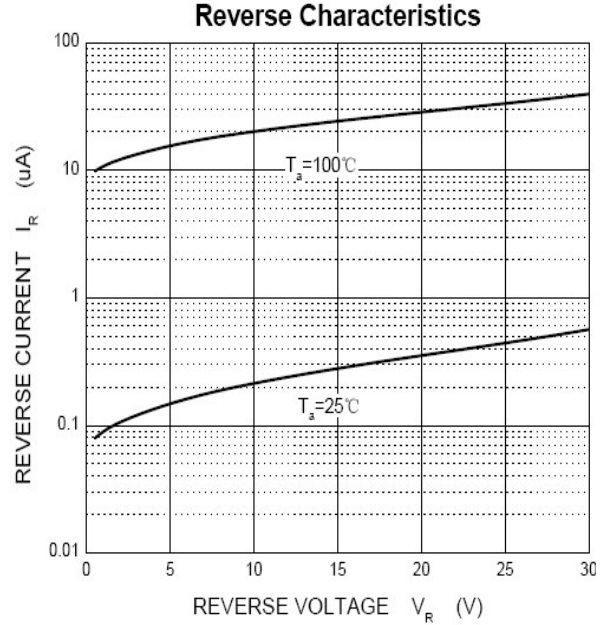
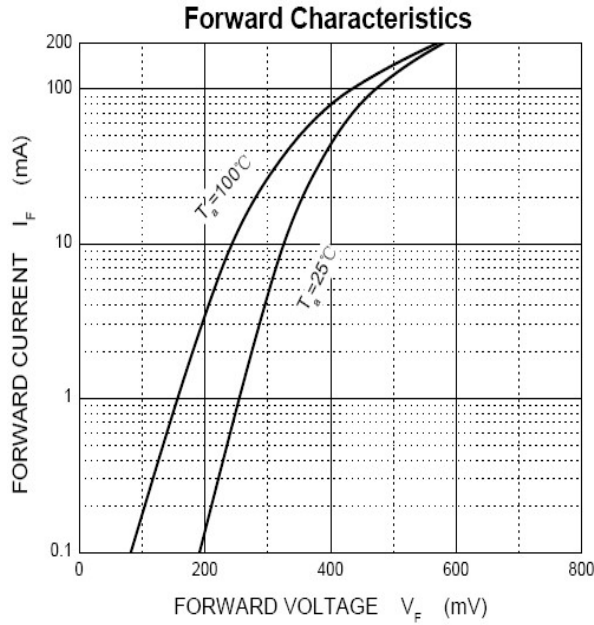


Maximum Ratings & Electrical Characteristics (T _A =25°C unless otherwise noted)			
Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	30	V
Working Peak Reverse voltage	V _{RWM}	30	V
Maximum DC blocking voltage	V _{DC}	30	V
Non-repetitive Peak Forward Current	I _{FM}	200	mA
Peak forward surge current 8.3 ms single half sine-wave	I _{FSM}	600	mA
Typical thermal resistance	R _{θJA}	500	°C/W
Power Dissipation	P _D	200	mW
Junction Temperature	T _J	125	°C
Storage temperature range	T _{STG}	-50-+150	°C

Electrical Specifications (T _A =25°C unless otherwise noted)						
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Maximum reverse breakdown voltage	V _(BR)	I _R = 100uA	30			V
Forward Voltage	V _F	I _F = 0.1mA			240	mV
		I _F = 1.0mA			320	mV
		I _F = 10mA			400	mV
		I _F = 30mA			500	mV
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 Ω			5	nS

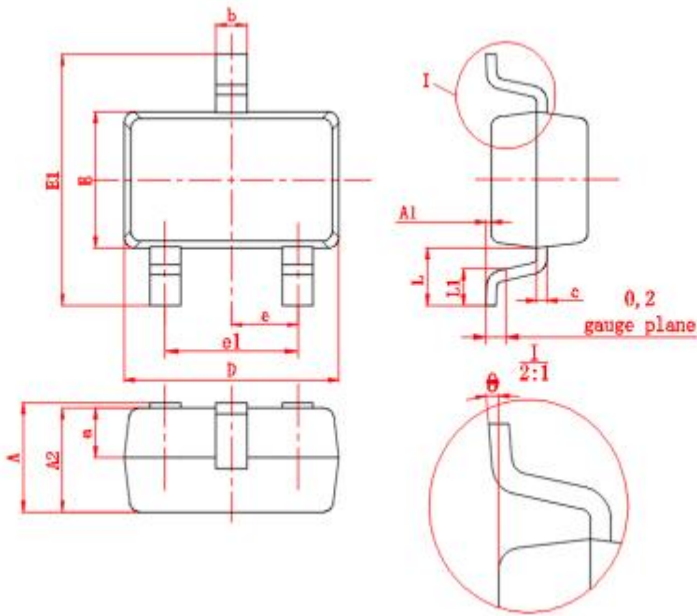
Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)



Package Outline Dimensions

millimeters



Symbol	Millimeters	
	min	max
A	0.9	1.1
A1	0	0.1
A2	0.9	1.0
a	(0.45)	
D	2.0	2.2
E	1.15	1.35
E1	2.15	2.45
e	(0.65)	
e1	1.2	1.4
b	0.25	0.35
c	0.08	0.15
L	(0.525)	
L1	0.26	0.46
θ	0°	8°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2018.07.07	First issue

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