

# BAT54W/AW/CW/SW

## BAT54W/AW/CW/SW SOT-323 Plastic-Encapsulate Schottky Barrier Diode

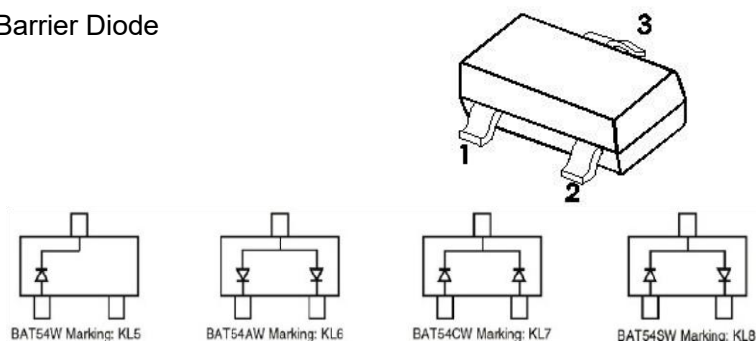
### General description

SOT-323 Plastic-Encapsulate Schottky Barrier Diode

### FEATURES

- High Current Capability
- Low Forward Voltage Drop
- Fast Switching Speed
- SOT-323 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

SOT-323



### Maximum Ratings @Ta=25°C

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)			
Parameters	Symbol	Limit	Unit
Maximum repetitive peak reverse voltage	VRRM	30	V
Working Peak Reverse voltage	VRWM	30	V
Maximum DC blocking voltage	VDC	30	V
Maximum average forward rectified current	IFM	200	mA
Peak forward surge current 8.3 ms single half sine-wave	IFSM	600	mA
Typical thermal resistance	RθJA	500	°C/W
Power Dissipation	PD	200	mW
Junction Temperature	Tj	125	°C
Storage temperature range	TSTG	-50-+150	°C

### Electrical Ratings @Ta=25°C

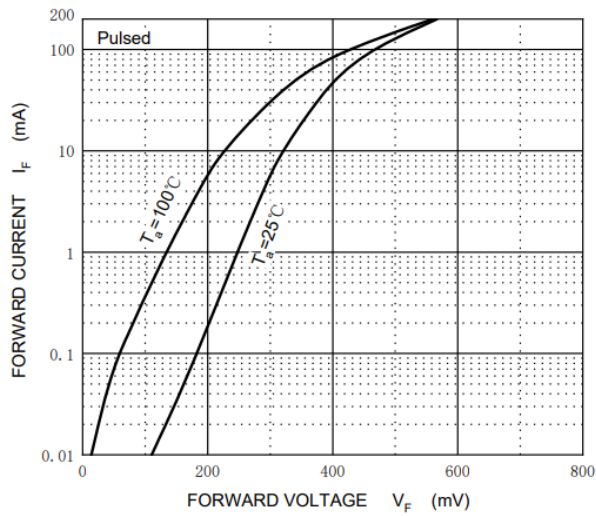
Parameters	Symbol	Test conditions	Min	Typ	Max	Unit
Maximum forward voltage	VF1	IF = 0.1mA			240	mV
	VF2	IF = 1.0mA			320	
	VF3	IF = 10mA			400	
	VF4	IF = 30mA			500	
	VF5	IF = 100mA			1000	
Maximum reverse breakdown voltage	VR	IR=100uA	30			V
Maximum reverse current	IR	VR=25V			2.0	uA
Type junction capacitance	Cj	VR = 1.0V, f = 1MHz			10	pF
Reverse Recovery time	trr	IF=IR=10mA Irr=0.1XIR, RL=100Ω			5	ns



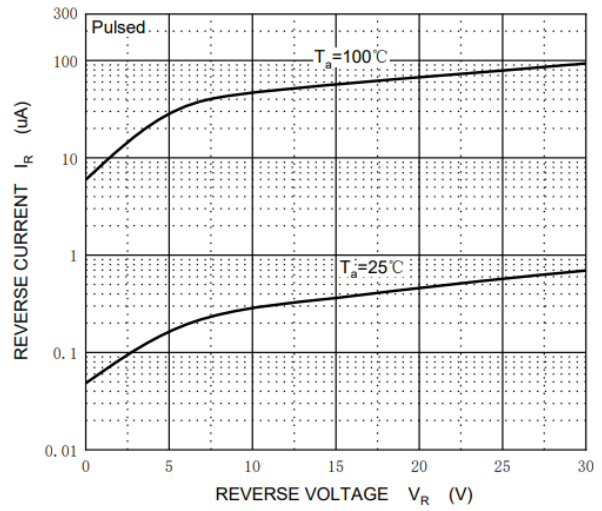
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## Typical characteristics

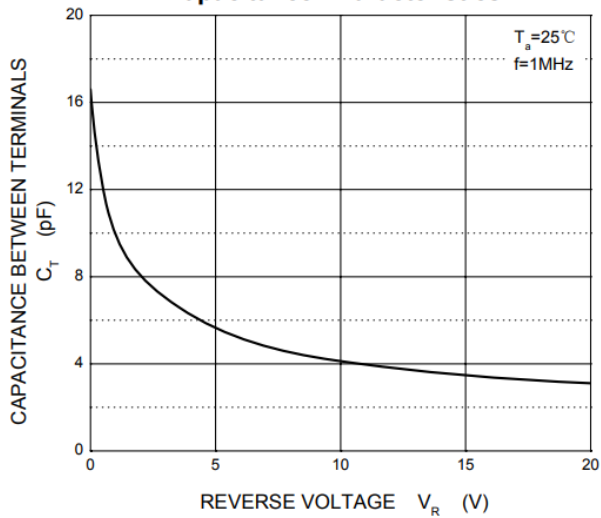
### Forward Characteristics



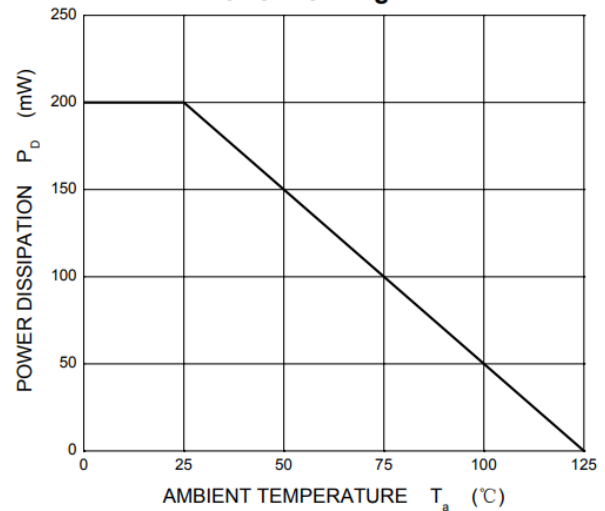
### Reverse Characteristics



### Capacitance Characteristics



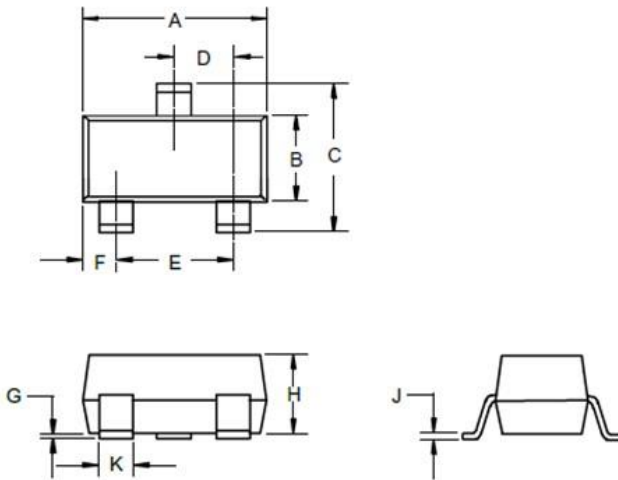
### Power Derating Curve





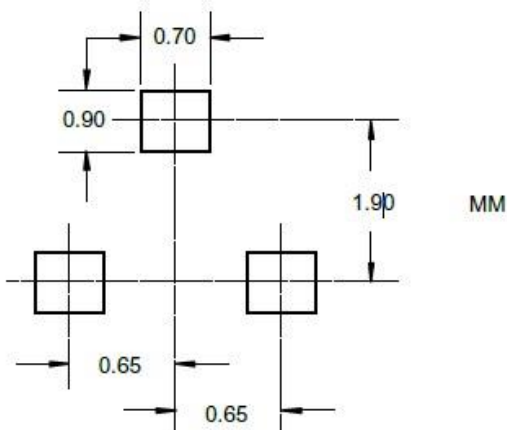
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## SOT-323 Package information



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.083	.096	2.10	2.45	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.006	.016	.15	.40	

### Suggested Pad Layout



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