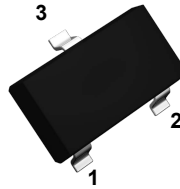


Features

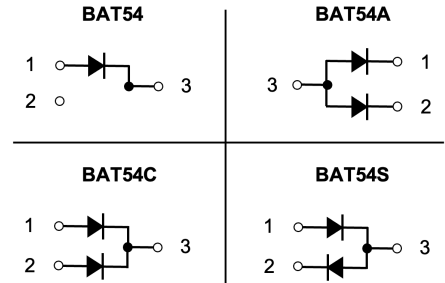
- Low forward voltage
- Low turn-on voltage
- Fast switching

Applications

- High speed switching
- Voltage clamping
- Protection circuits



SOT-23



Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	30	V
Working Peak Reverse Voltage	V _{RWM}		V
DC Blocking Voltage	V _R		V
Forward Continuous Current	I _F	200	mA
Repetitive Peak Forward Surge Current	I _{FRM}	300	mA
Forward Surge Current @ t=8.3ms Single Half Sine-Wave	I _{FSM}	600	mA
Power Dissipation	P _D	200	mW
Thermal Resistance, Junction-to-Ambient	R _{θJA}	500	°C/W
Operating Junction Temperature Range	T _J	-50 To +150	°C
Storage Temperature Range	T _{STG}	-50 To +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	V _(BR)	I _R =100μA	30	-	V
Forward Voltage	V _{F1}	I _F =0.1mA	-	0.24	V
		I _F =1mA	-	0.32	V
		I _F =10mA	-	0.4	V
		I _F =30mA	-	0.5	V
		I _F =100mA	-	0.8	V
Reverse Leakage Current	I _R	V _R =25V	-	2	uA
Diode Capacitance	C _D	V _R =1V, f=1MHz	-	10	pF
Reverse Recovery Time	t _{rr}	I _F =I _R =10mA, R _L = 100Ω I _{RR} =0.1*I _R	-	5	ns

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

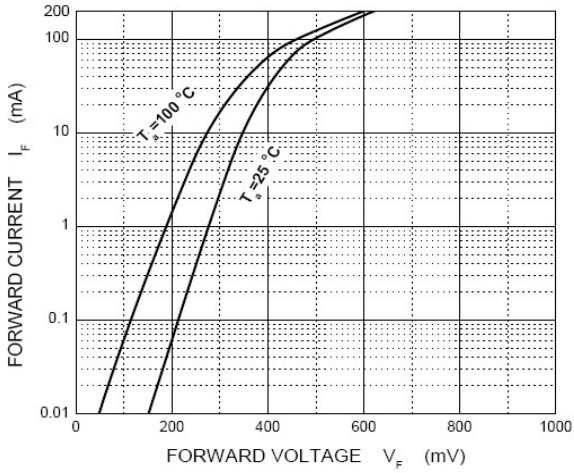


Figure 1. Forward Characteristics

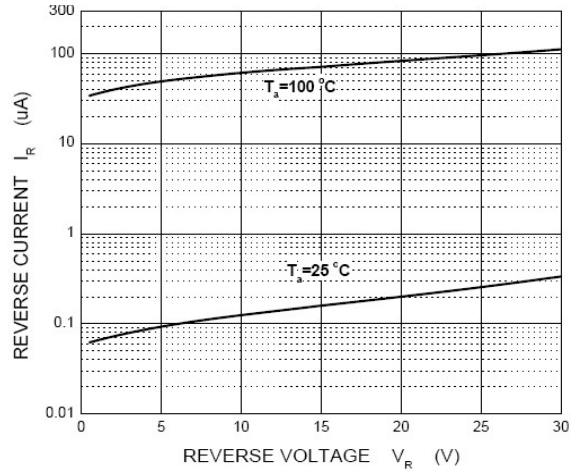


Figure 2. Reverse Characteristics

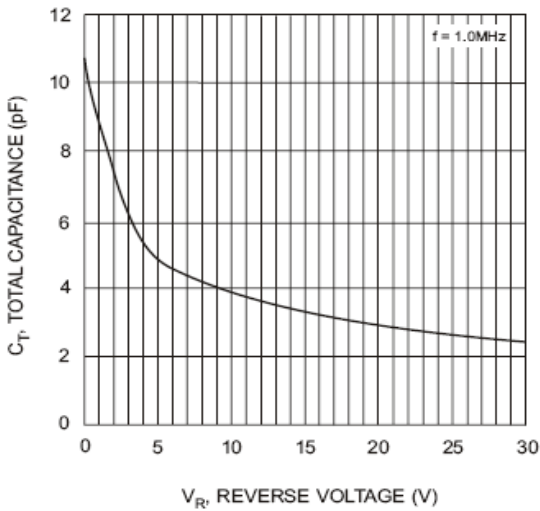


Figure 3. Capacitance Characteristics

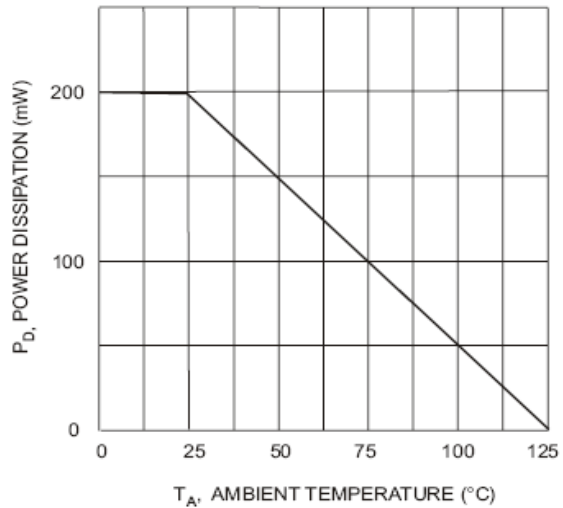
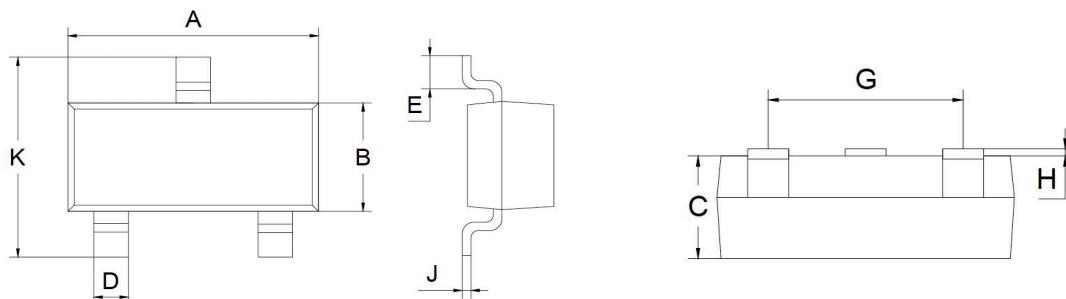


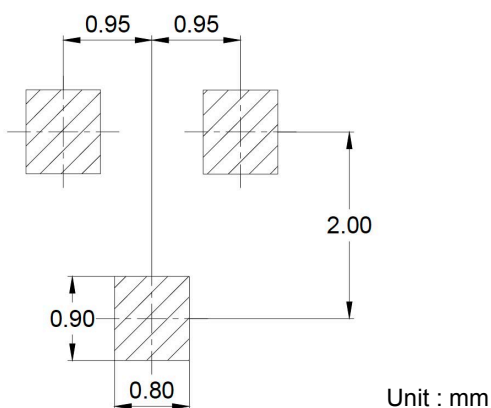
Figure 4. Power Derating Curve

Package Outline Dimensions (SOT-23)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.700	3.100	0.106	0.122
B	1.100	1.500	0.043	0.059
C	0.900	1.050	0.035	0.041
D	0.400 TYP		0.016 TYP	
E	0.350	0.480	0.014	0.019
G	1.800	2.000	0.071	0.079
H	0.020	0.100	0.001	0.004
J	0.100 TYP		0.004 TYP	
K	2.200	2.600	0.087	0.102

Recommended Pad Layout



Order information

Device	Package	Marking	Carrier	Quantity
BAT54	SOT-23	KL1	Tape & Reel	3,000pcs / Reel
BAT54A	SOT-23	KL2	Tape & Reel	3,000pcs / Reel
BAT54C	SOT-23	KL3	Tape & Reel	3,000pcs / Reel
BAT54S	SOT-23	KL4	Tape & Reel	3,000pcs / Reel