

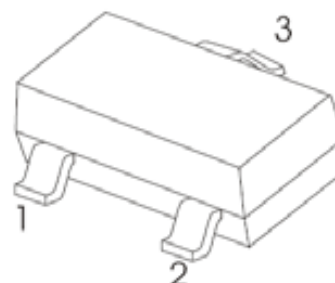
■ Features

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

■ Mechanical Data

- package:SOT-23
- Flammability rating of epoxy resin: UL 94V-0
- Mounting Position: Any

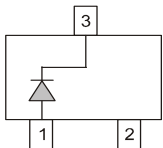
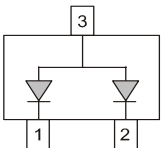
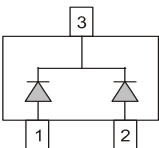
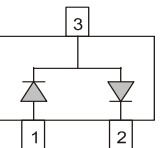
SOT-23



■ Ordering Information

Part Number	Package	Marking	Packing	Quantity per reel	Reel Size
BAT54	SOT-23	KL1	Tape & Reel	3000 PCS	7 inches
BAT54A	SOT-23	KL2	Tape & Reel	3000 PCS	7 inches
BAT54C	SOT-23	KL3	Tape & Reel	3000 PCS	7 inches
BAT54S	SOT-23	KL4	Tape & Reel	3000 PCS	7 inches

■ Pin Configuration

BAT54	BAT54A	BAT54C	BAT54S
			

■ **Maximum Ratings & Thermal Characteristics**(Ratings at 25℃ ambient temperature unless otherwise specified.)

Parameters	Symbol	Limit	Unit
Maximum repetitive peak reverse voltage	VRRM	30	V
Maximum RMS voltage	VRMS	21	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	℃/W
Power Dissipation	PD	200	mW
Junction Temperature	Tj	125	℃
Storage temperature range	TSTG	-50-+150	℃

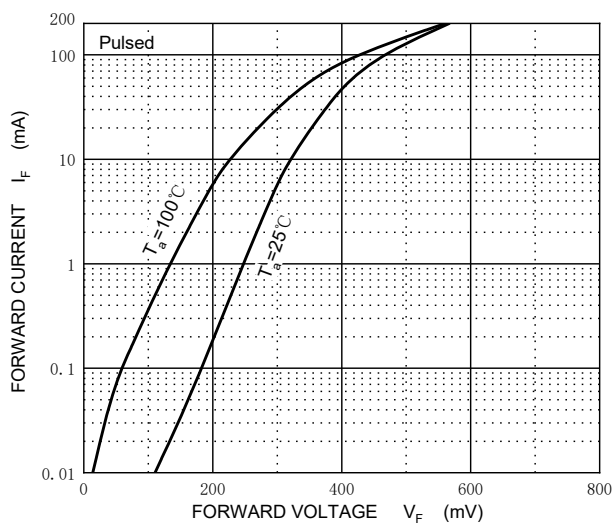
■ **Electrical Characteristics**(Ratings at 25℃ ambient temperature unless otherwise specified)

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

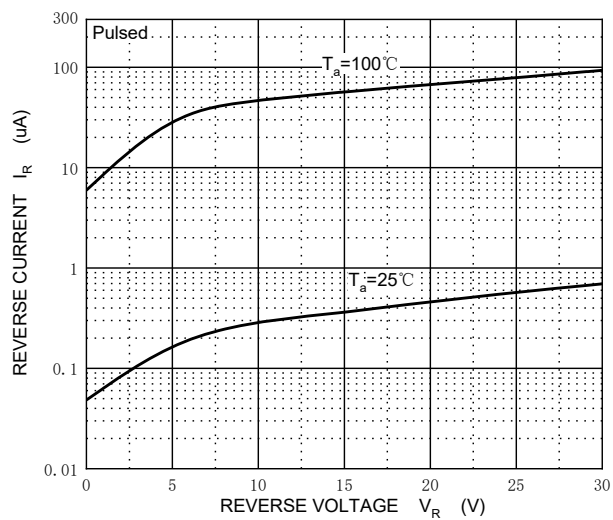


■ Typical Characteristics

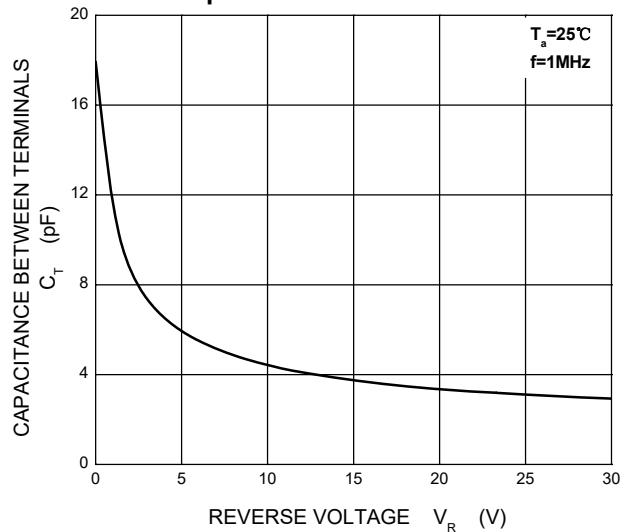
Forward Characteristics



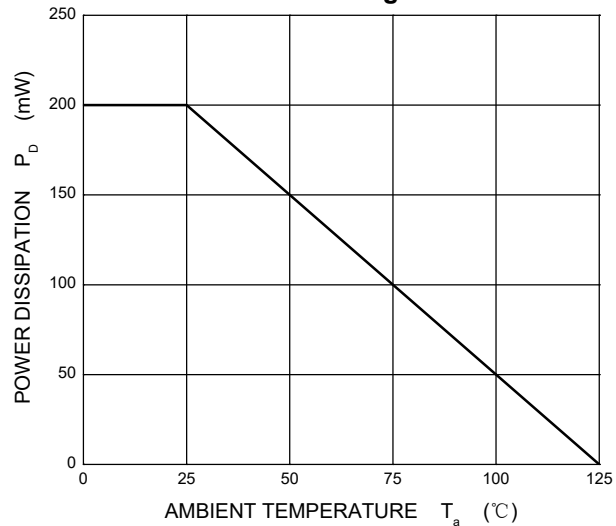
Reverse Characteristics



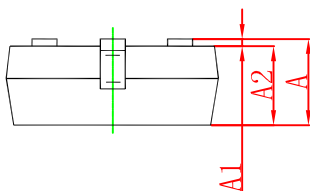
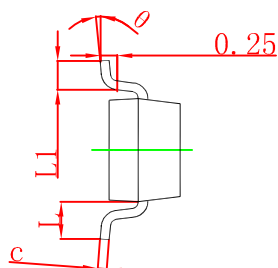
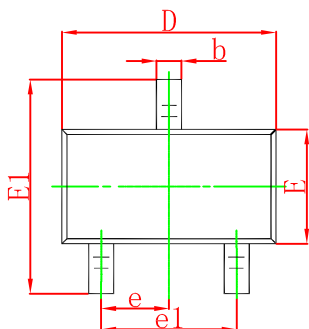
Capacitance Characteristics



Power Derating Curve



■ SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°