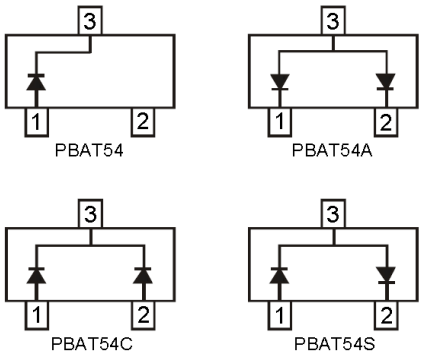
Features

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



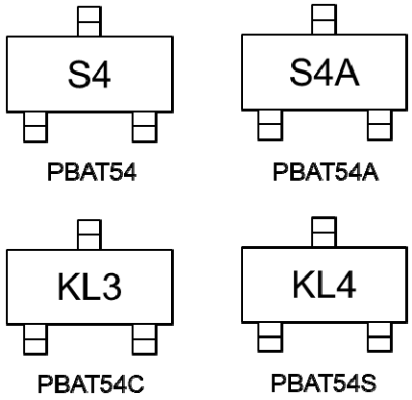
Circuit Diagram

Applications

- Ultra high-speed switching
- Voltage clamping
- Protection circuits
- Blocking diodes.

Mechanical Characteristics

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260℃
- Device meets MSL 1 requirements
- Pure tin plating: 7 ~ 17 um
- Pin flatness：≤3mil



Marking (Top View)

Electrical characteristics per line@25℃

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Maximum forward voltage	VF1			500	mV	I_F=30mA
	VF2			1000	mV	I_F=100mA
Maximum reverse breakdown voltage	VR	30			V	IR=100uA
Maximum reverse current	IR			2.0	uA	VR=25V
Reverse recovery time	trr			5	nS	I_F=I_R=10mA Irr=0.1XIR, RL=100Ω
Junction Capacitance	C_J		18	30	pF	V_R=0V f = 1MHz

Absolute maximum rating@25℃

Parameter	Symbol	limit	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	30	V
Maximum RMS voltage	V_{RMS}	21	V
Maximum DC blocking voltage	V_{DC}	30	V
Maximum average forward rectified current	I_{FM}	200	mA
Peak forward surge current 8.3ms single half sine-wave	I_{FSM}	600	mA
Typical thermal resistance	$R_{\theta JA}$	500	℃/W
Powe Dissipation	P_D	200	mW
Junction Temperature	T_J	125	℃
Storage temperature range	T_{STG}	-50~+150	℃

Typical Characteristics

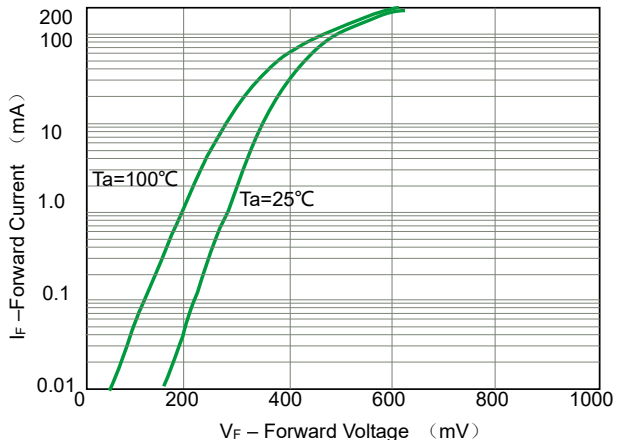


Fig 1. Forward Characteristics

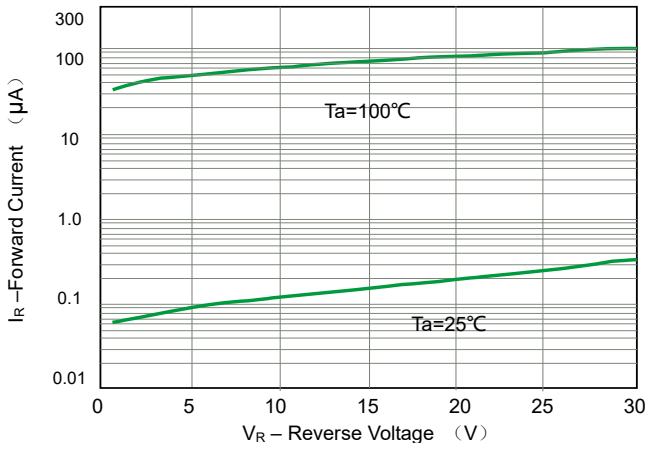


Fig 2. Reverse Characteristics

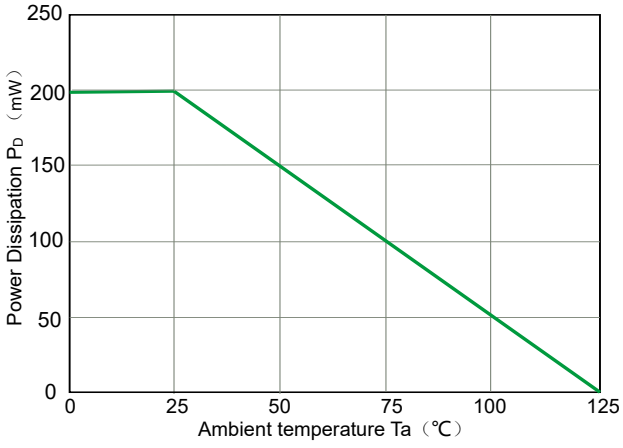


Fig 3. Power Derating Curve

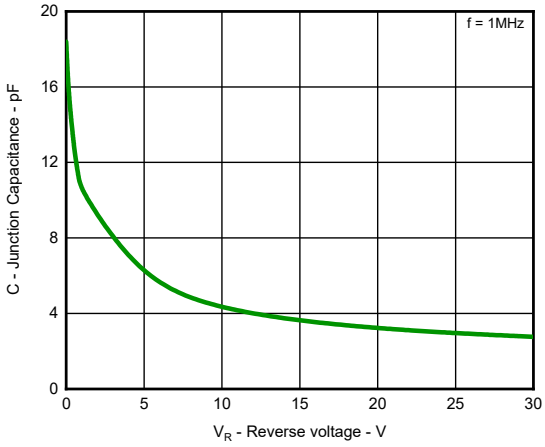
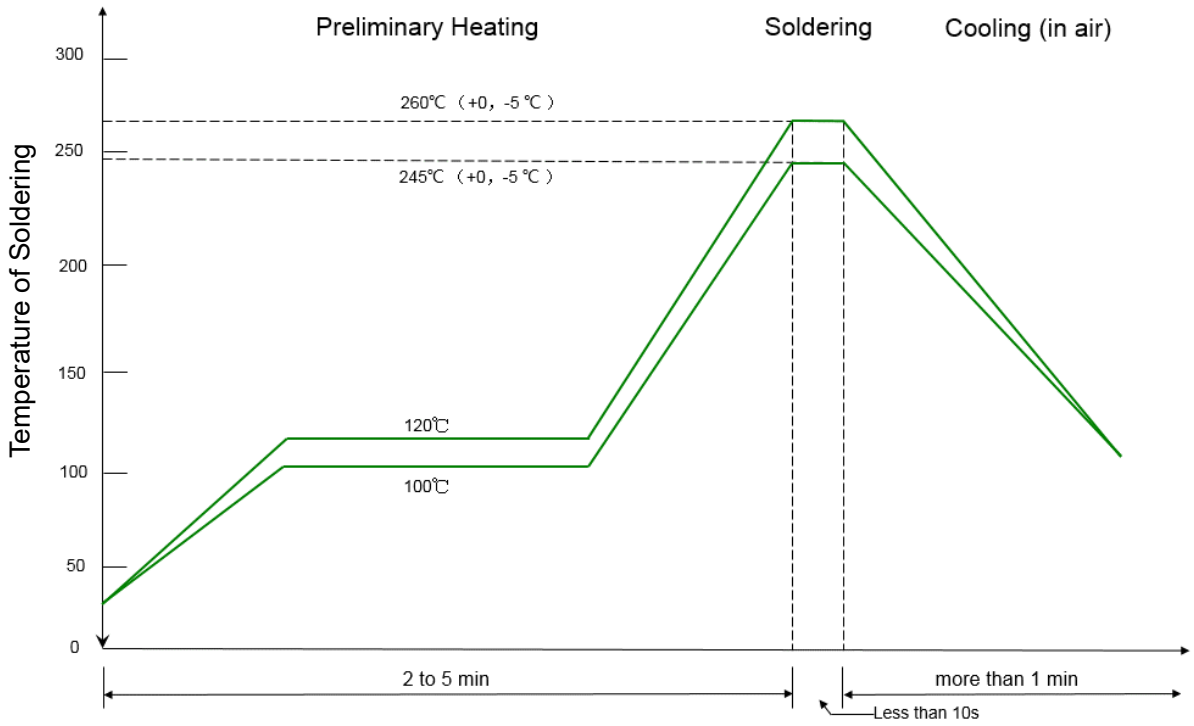


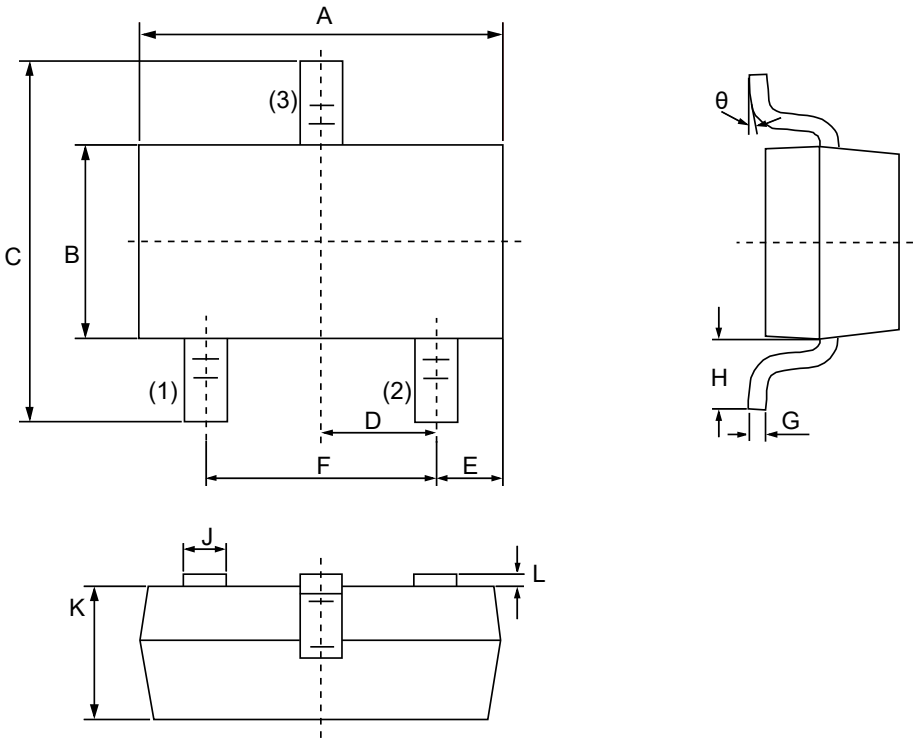
Fig 4. Capacitance vs. Reveres voltage

Solder Reflow Recommendation

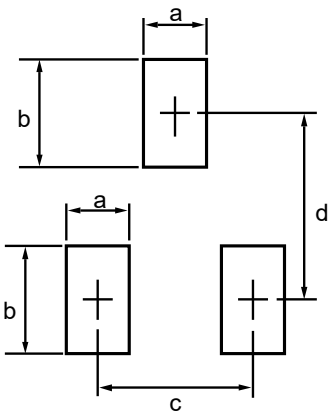


Remark: Pb free for 260℃; Pb for 245℃.

Product dimension(SOT-23)



Dim	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	2.80	3.00	0.110	0.118
B	1.20	1.40	0.047	0.055
C	2.25	2.55	0.089	0.100
D	0.95 Typ.		0.037 Typ.	
E	0.40	0.60	0.016	0.024
F	1.80	2.00	0.071	0.079
G	0.08	0.15	0.003	0.006
H	0.55 Ref.		0.022 Ref.	
J	0.30	0.50	0.012	0.020
K	0.90	1.05	0.035	0.041
L	0.00	0.10	0.000	0.004
θ	0°	8°	0°	8°



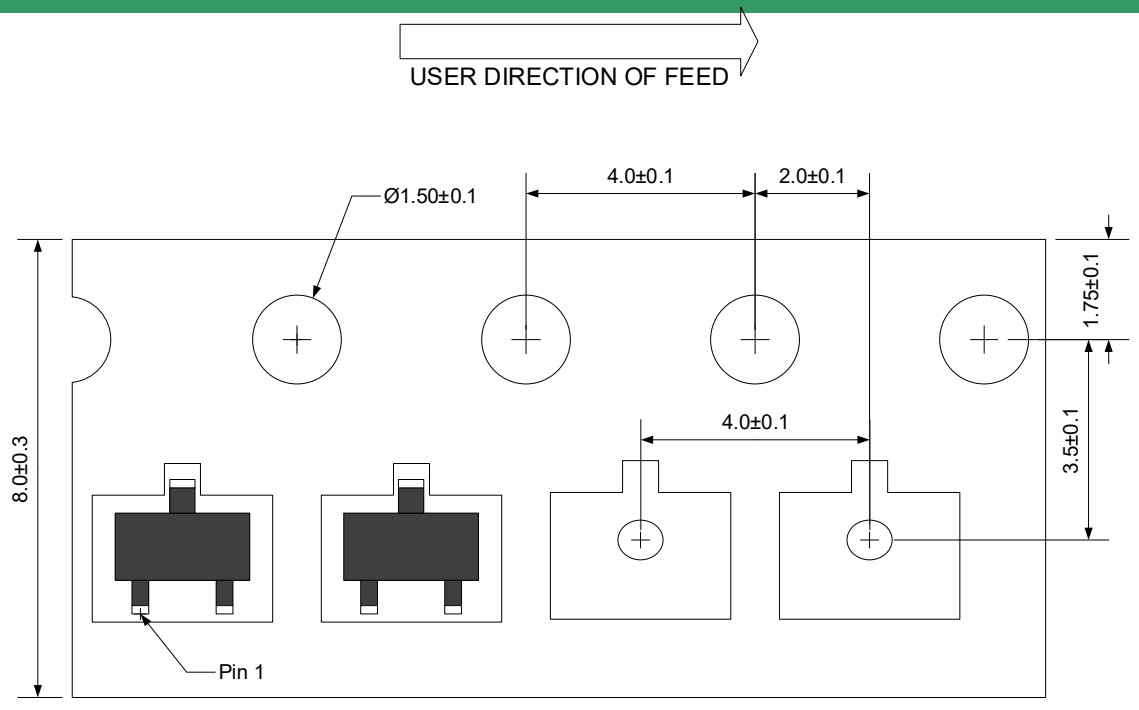
Suggested PCB Layout

Dim	Millimeters	
	MIN	MAX
a	--	0.7
b	--	1.2
c	--	2.0
d	--	2.2

Ordering information

Package	Reel Size	MPQ
SOT-23	7"	3000 / Tape & Reel

Load with information



Unit:mm

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