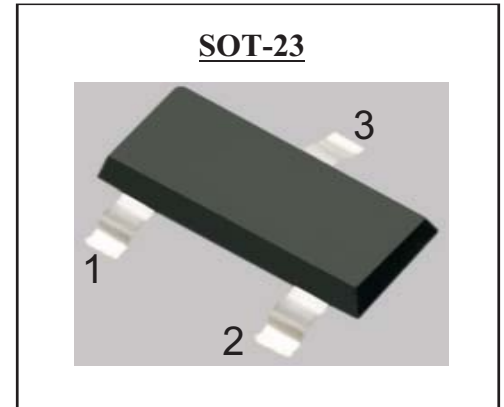
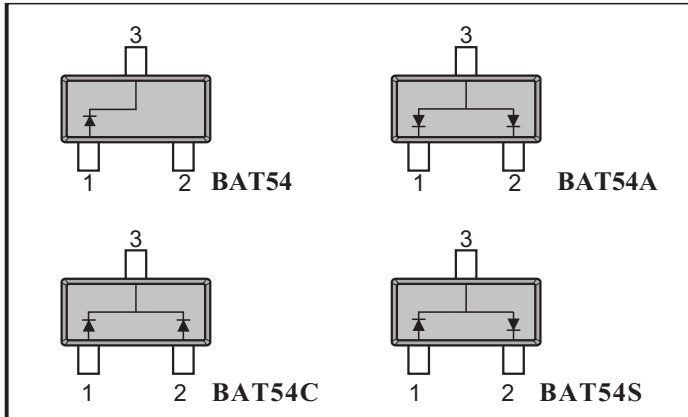


EXTREMELY FAST SWITCHING SPEED

FEATURES

- High Performance & Reliability best suited for Automotive application



MAXIMUM RATINGS ((TA=25°C, unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
Forward Continuous Current	I_{FM}	200	mA
Non-repetitive Peak Forward Surge Current @ $t=8.3ms$	I_{FSM}	600	mA
Repetitive Peak Forward Current @ $t \leq 1s, \delta \leq 0.5$ Power	I_{FRM}	300	mA
Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	R_{thJA}	500	°C/W
Operating Junction Temperature Range	T_J	-40 ~ +125	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS(Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	V_{BR}	IR=100μA	30			V
Reverse current	I_R	VR=25V			2	uA
Forward voltage	V_F	IF1=0.1mA			0.24	V
		IF2=1mA			0.32	V
		IF3=10mA			0.40	V
		IF4=30mA			0.50	V
		IF5=100mA			1	V
Diode capacitance Reverse	CD	VR=4V, f=1MHz		10		pF
recovery time	trr	IF= IR=10mA, Irr=0.1×IR , RL=100Ω			5	ns

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Typical Characteristics

Fig.1 Power Derating Curve

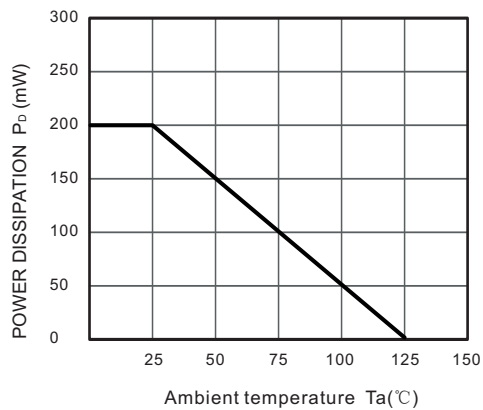


Fig.2 Reverse Characteristics

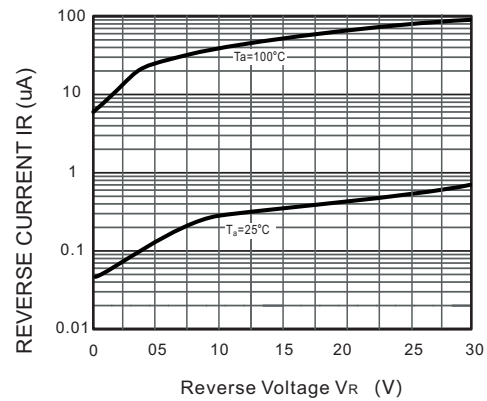


Fig.3 Forward Characteristics

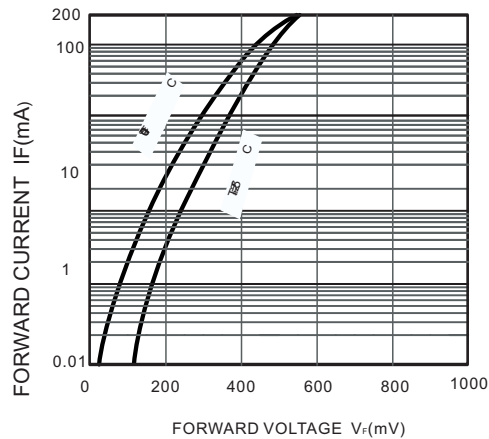
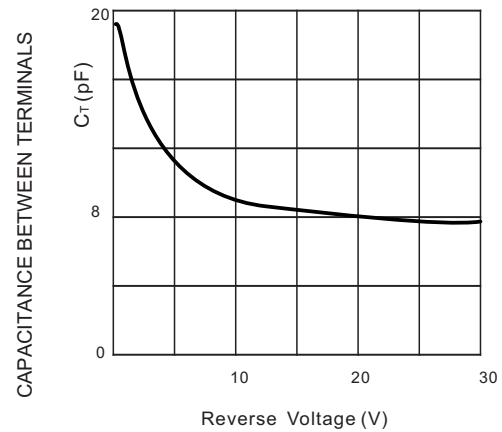
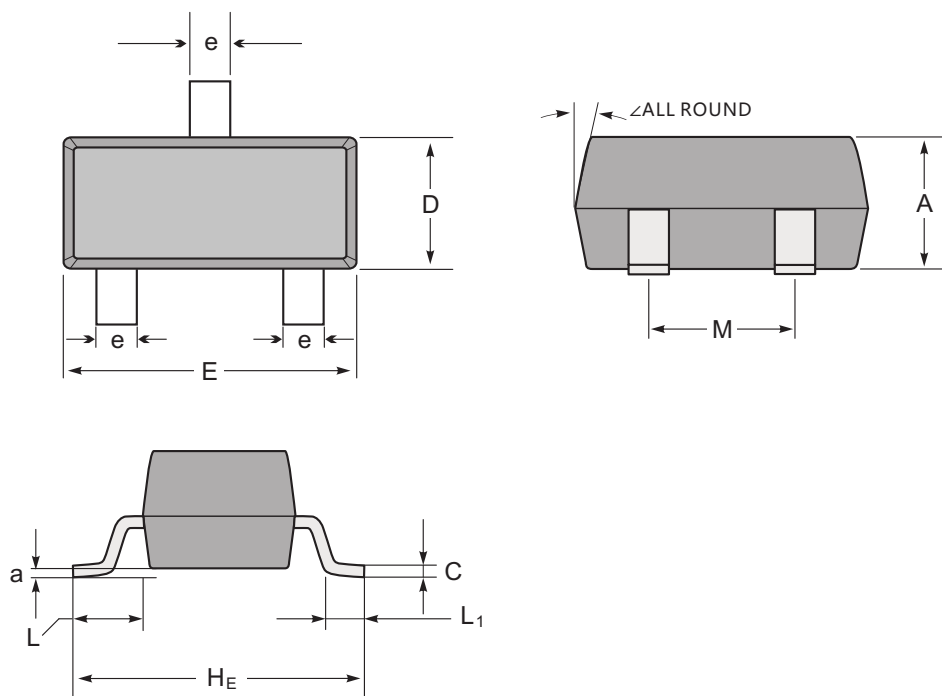


Fig.4 Capacitance Characteristics



EXTREMELY FAST SWITCHING SPEED

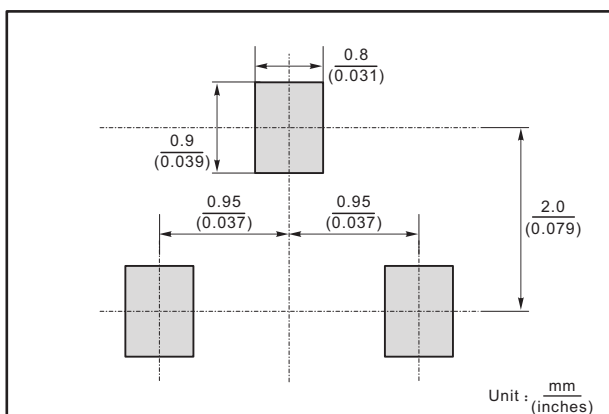
SOT-23 Package Outline Dimensions



SOT-23 mechanical data

UNIT		A	C	D	E	HE	e	M	L	L1	a	∠
mm	max	1.1	0.20	1.4	3.0	2.6	0.6	1.95	0.55 (ref)	0.36 (ref)	0.15	12°
	min	0.9	0.08	1.2	2.8	2.2	0.35	1.7			0.0	
mil	max	43	7.9	55	118	102	24	77	22 (ref)	14 (ref)	6	
	min	35	3.1	47	110	87	13	67			0.0	

The recommended mounting pad size



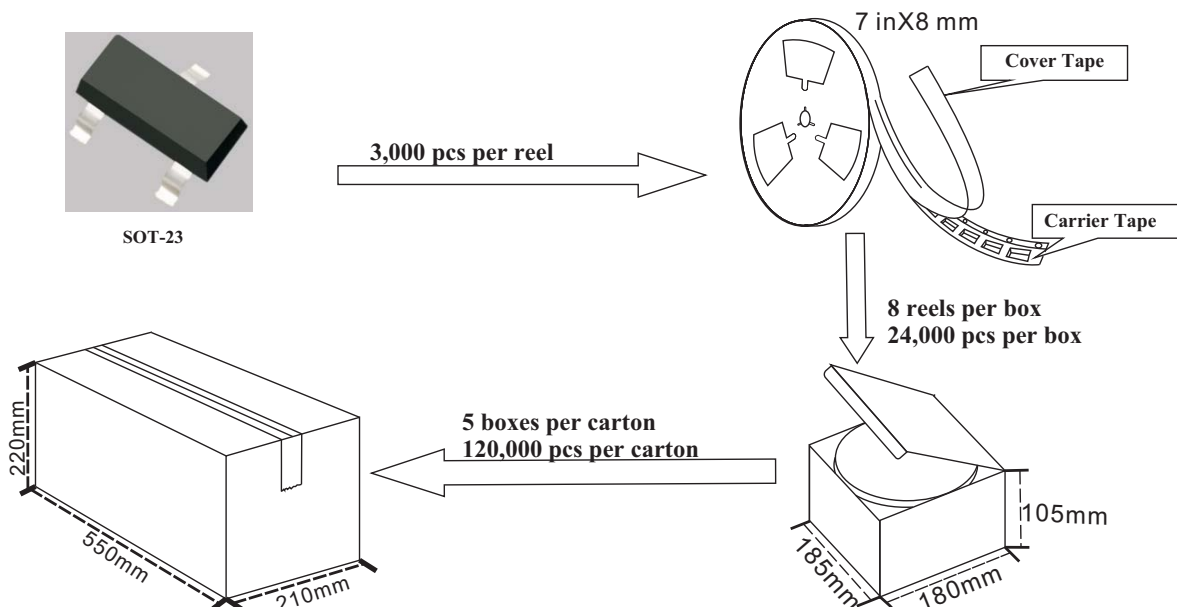
Marking

Type number	Marking code
BAT54	KL1
BAT54A	KL2
BAT54C	KL3
BAT54S	KL4

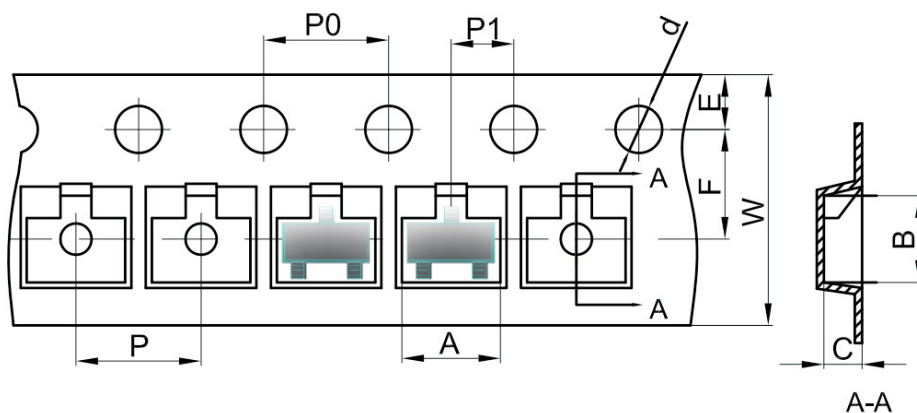
EXTREMELY FAST SWITCHING SPEED

SOT-23 Packing

1. The method of packaging and dimension are shown as below figure. (Dimension in mm)



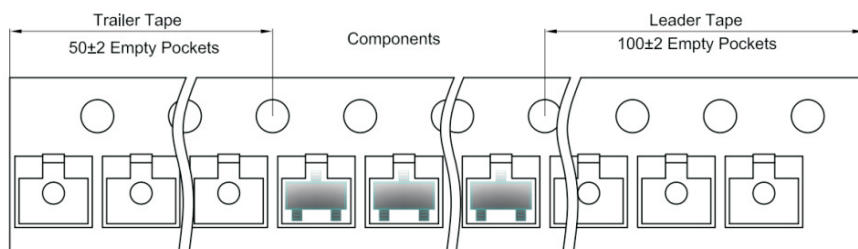
SOT-23 Embossed Carrier Tape



Dimensions are in millimeter

Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23 Tape Leader and Trailer



Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

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