

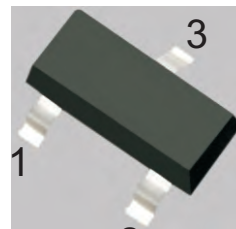
FEATURES

- Ideally suited for automatic insertion
- For switching and AF amplifier applications

MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector–Base Voltage	BC846 BC847 BC848	80 50 30	V
Collector–Emitter Voltage	BC846 BC847 BC848	65 45 30	V
Emitter–Base Voltage	V _{EBO}	6	V
Collector Current — Continuous	I _C	0.1	A
Collector Power Dissipation	P _C	200	mW
Thermal Resistance From Junction To Ambient	R _{thJA}	625	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55~+150	°C

SOT-23

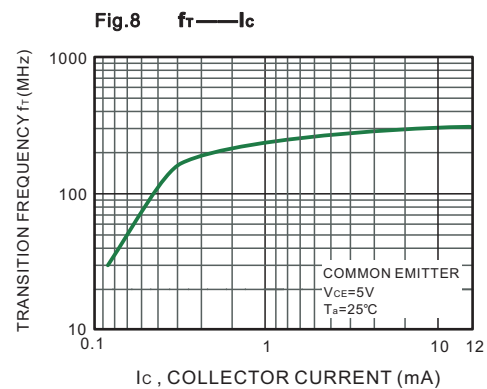
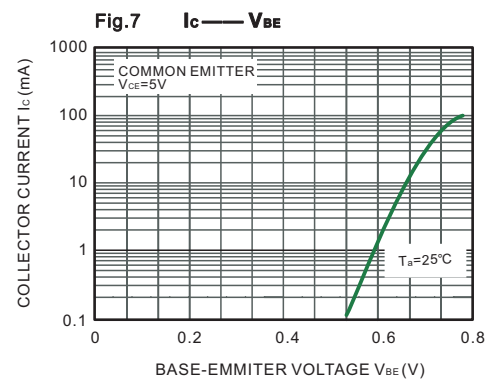
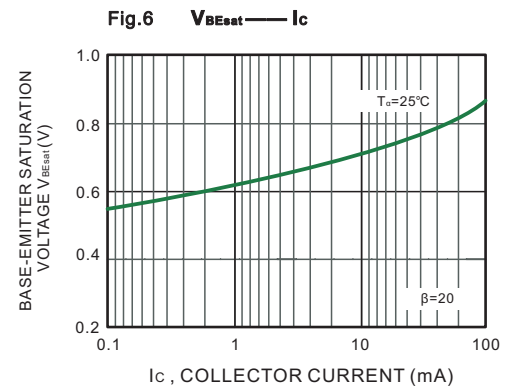
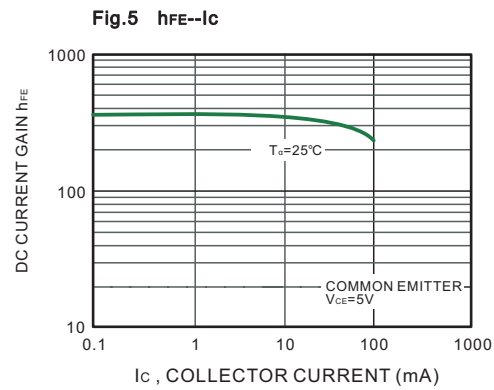
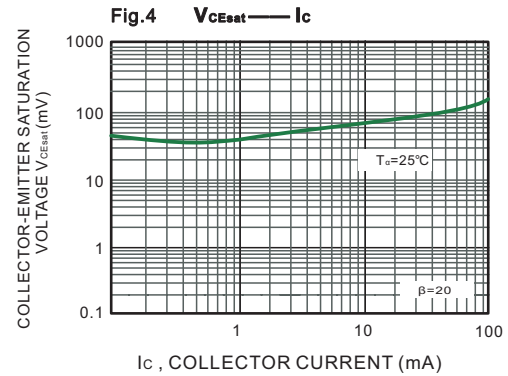
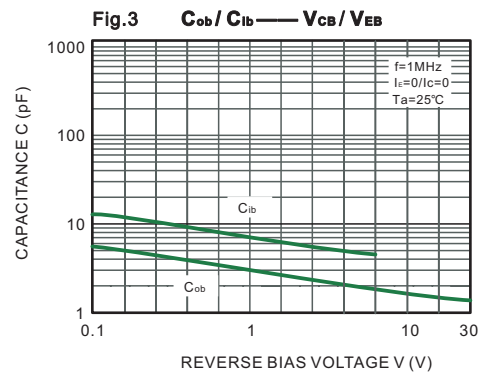
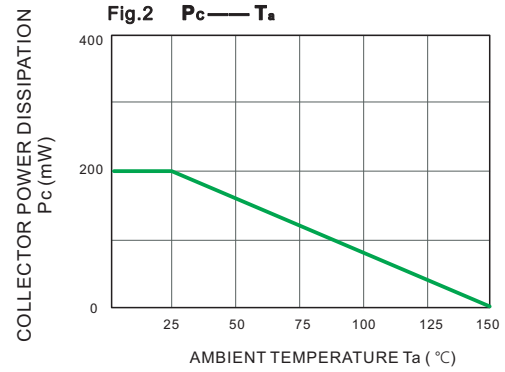
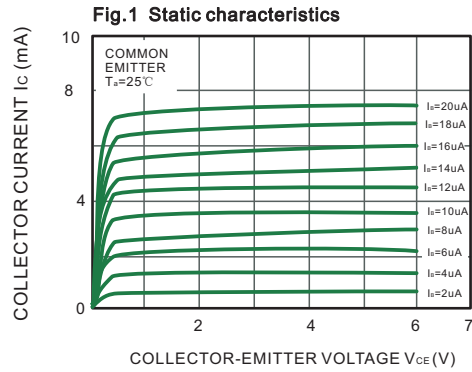


1.BASE
2.EMITTER
3.COLLECTOR

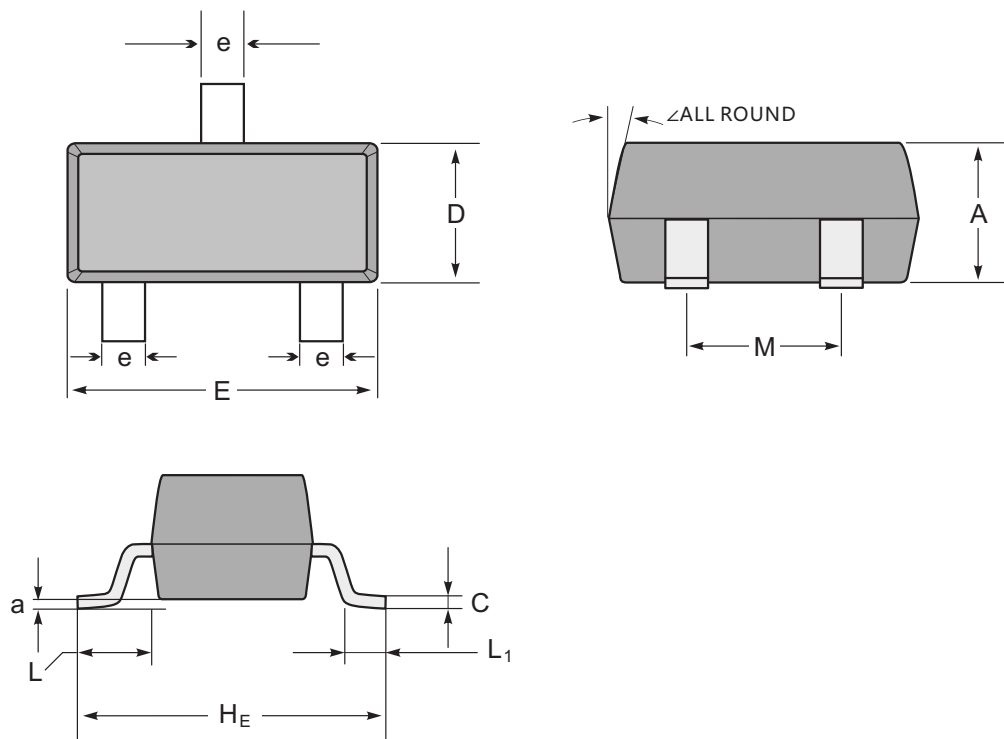
ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BC846 BC847 BC848	V _{CBO}	I _C = 10μA, I _E = 0	80 50 30		V
Collector-emitter breakdown voltage	BC846 BC847 BC848	V _{CEO}	I _C = 10mA, I _B = 0	65 45 30		V
Emitter-base breakdown voltage		V _{EBO}	I _E = 10μA, I _C = 0	6		V
Collector cut-off current	BC846 BC847 BC848	I _{CBO}	V _{CB} = 70V, I _E = 0 V _{CB} = 50V, I _E = 0 V _{CB} = 30V, I _E = 0		0.1	μA
Collector cut-off current	BC846 BC847 BC848	I _{CEO}	V _{CE} = 60V, I _B = 0 V _{CE} = 45V, I _B = 0 V _{CE} = 30V, I _B = 0		0.1	μA
Emitter cut-off current		I _{EBO}	V _{EB} = 5V, I _C = 0		0.1	μA
DC current gain	BC846A,847A,848A BC846B,847B,848B BC847C,BC848C	h _{FE}	V _{CE} = 5V, I _C = 2mA	110 200 420	220 450 800	
Collector-emitter saturation voltage		V _{CE(sat)}	I _C = 100mA, I _B = 5mA		0.5	V
Base-emitter saturation voltage		V _{BE(sat)}	I _C = 100mA, I _B = 5mA		1.1	V
Transition frequency		f _T	V _{CE} = 5V, I _C = 10mA, f = 100MHz	100		MHz
Collector output capacitance		C _{ob}	V _{CB} = 10V, f = 1MHz		4.5	pF

TYPICAL CHARACTERISTICS



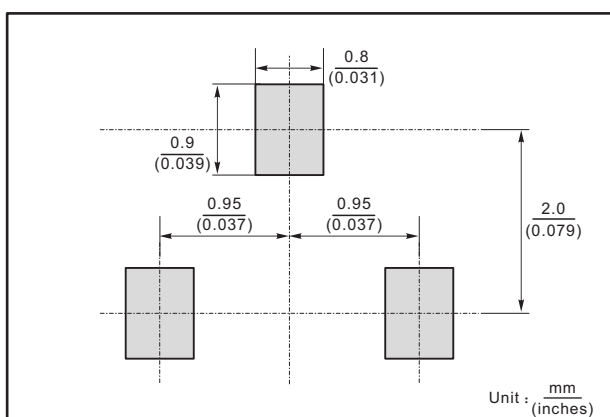
SOT-23 Package Outline Dimensions



SOT-23 mechanical data

UNIT		A	C	D	E	HE	e	M	L	L1	a	∠
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0	12°
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15	
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0	
	min	35	3	47	110	87	12	67			6	

The recommended mounting pad size

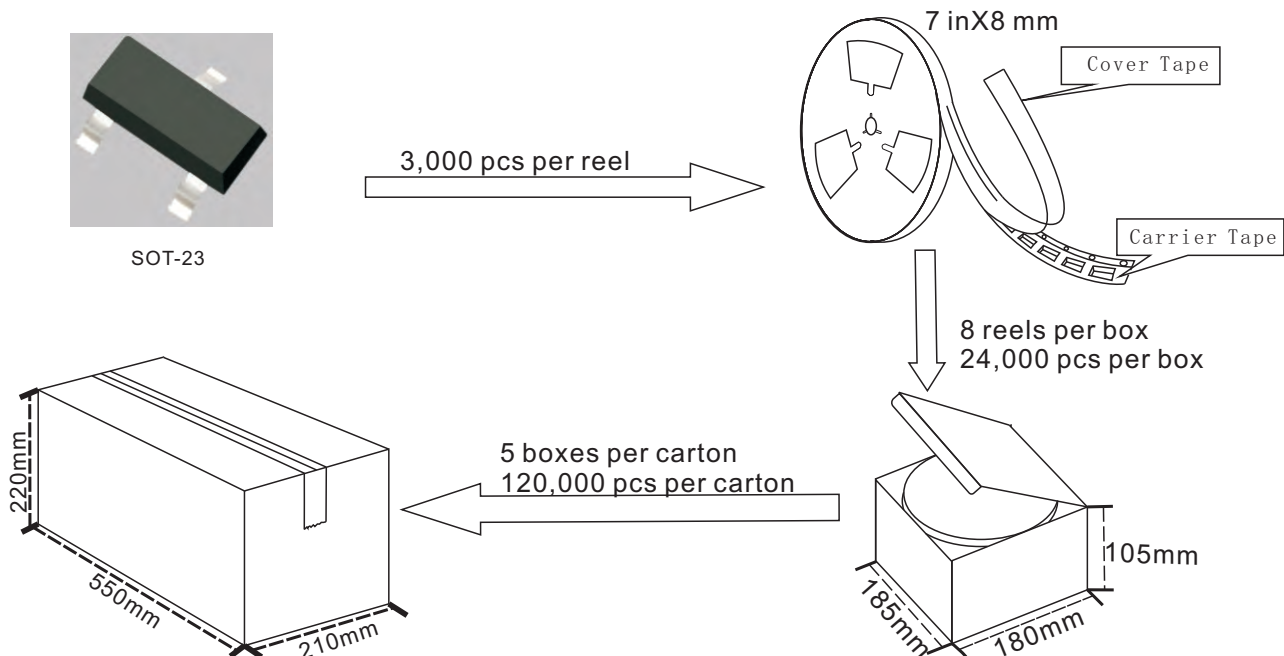


Marking

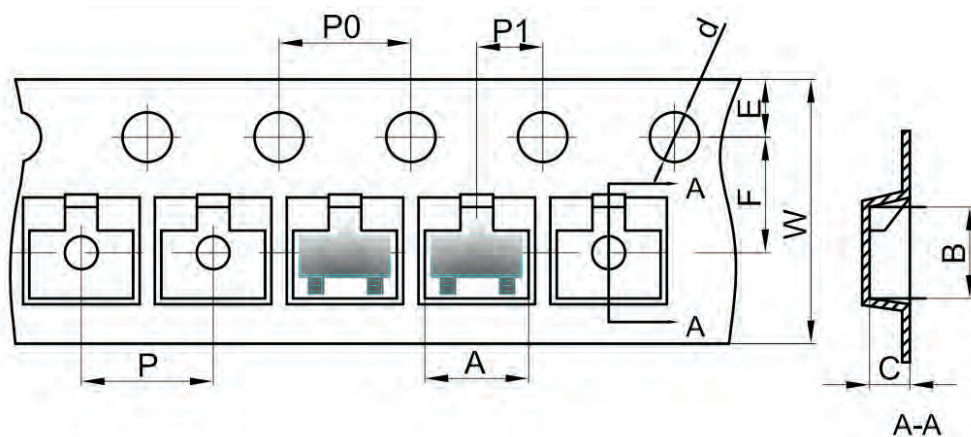
Type number	Marking code
BC846A	1A
BC846B	1B
BC847A	1E
BC847B	1F
BC847C	1G
BC848A	1J
BC848B	1K
BC848C	1L

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

