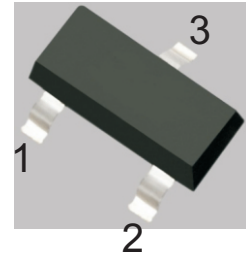


MMBT3906
PNP TRANSISTOR

FEATURES

- As complementary type, the NPN transistor MMBT3904 is Recommended
- Epitaxial planar die construction

SOT-23



1.BASE
2.EMITTER
3.COLLECTOR

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

Parameter	Symbol	Value	Unit
Collector–Base Voltage	V _{CB0}	-40	V
Collector–Emitter Voltage	V _{CEO}	-40	V
Emitter–Base Voltage	V _{EBO}	-5	V
Collector Current — Continuous	I _C	-0.2	A
Collector Dissipation	P _C	0.2	W
Thermal Resistance From Junction To Ambient	R _{thJA}	625	°C/W
Operation Junction and Storage Temperature Range	T _J , T _{stg}	-55~+150	°C

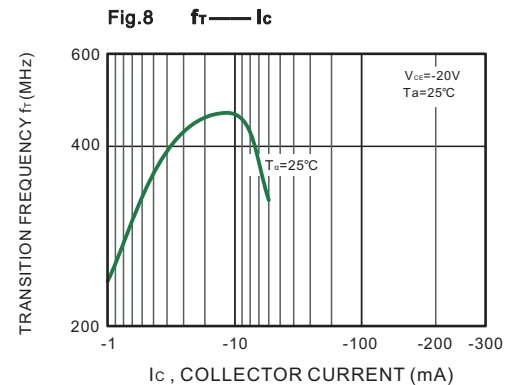
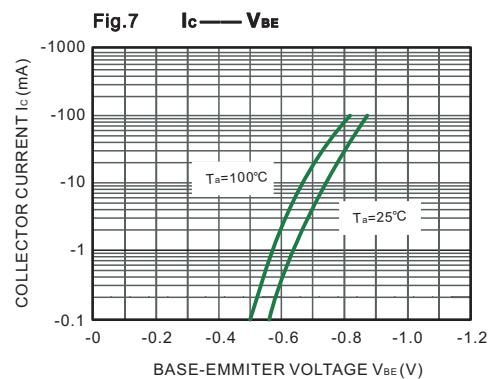
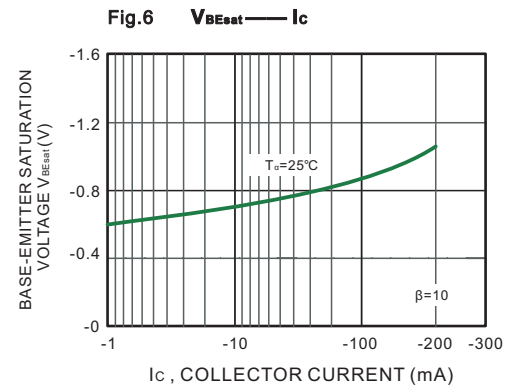
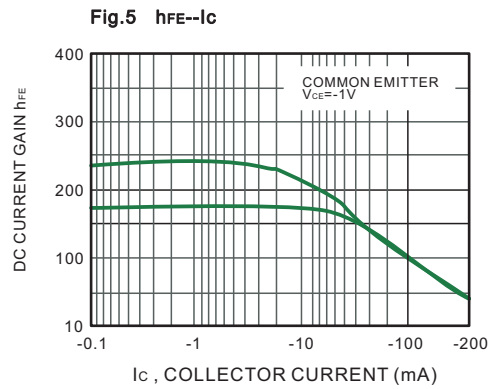
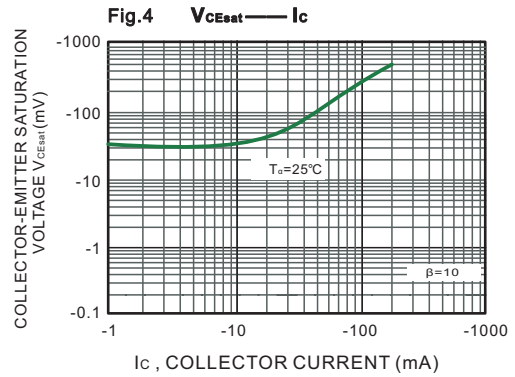
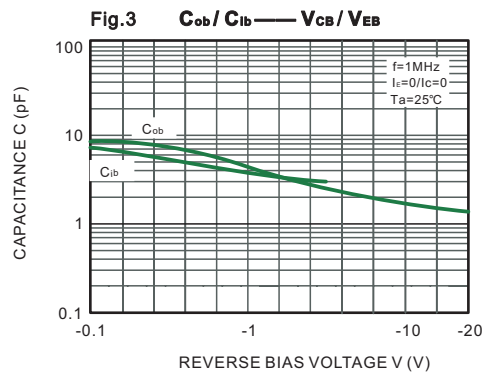
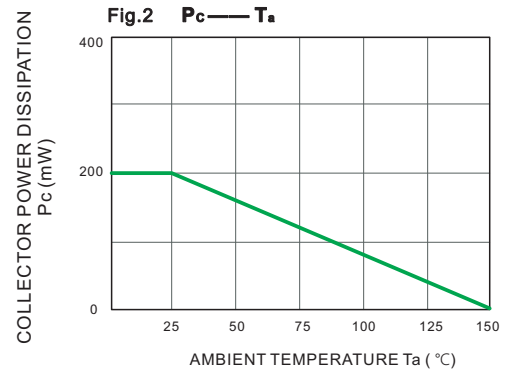
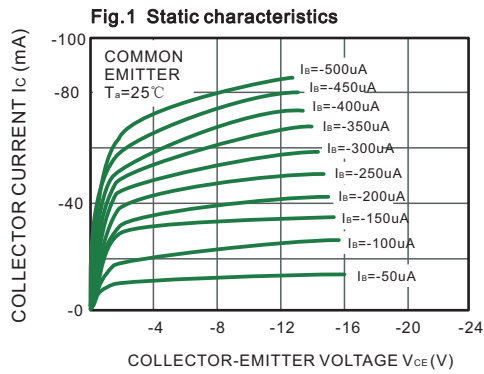
ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = -10uA, I _E = 0	-40		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = -1 mA, I _B = 0	-40		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = -10uA, I _C = 0	-5		V
Collector cut-off current	I _{CBO}	V _{CB} = -40V, I _E = 0		-100	nA
Collector cut-off current	I _{CEX}	V _{CE} = -30V, V _{CE} = -3V		-50	nA
Emitter cut-off current	I _{EBO}	V _{EB} = -5V, I _C = 0		-100	nA
DC current gain	h _{FE1}	V _{CE} = -1V, I _C = -10mA	100	300	
	h _{FE2}	V _{CE} = -1V, I _C = -50mA	60		
	h _{FE3}	V _{CE} = -2V, I _C = -100mA	30		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -50mA, I _B = -5mA		-0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = -50mA, I _B = -5mA		-0.95	V
Transition frequency	f _T	V _{CE} = -20V, I _C = -10mA, f = 100MHz	300		MHZ
Delay time	t _d	V _{CC} = -3V, V _{BE} = -0.5V I _C = -10mA, I _{B1} = I _{B2} = -1mA		35	ns
Rise time	t _r			35	ns
Storage time	t _s	V _{CC} = -3V, I _C = -10mA I _{B1} = I _{B2} = -1mA		225	ns
Fall time	t _f			75	ns

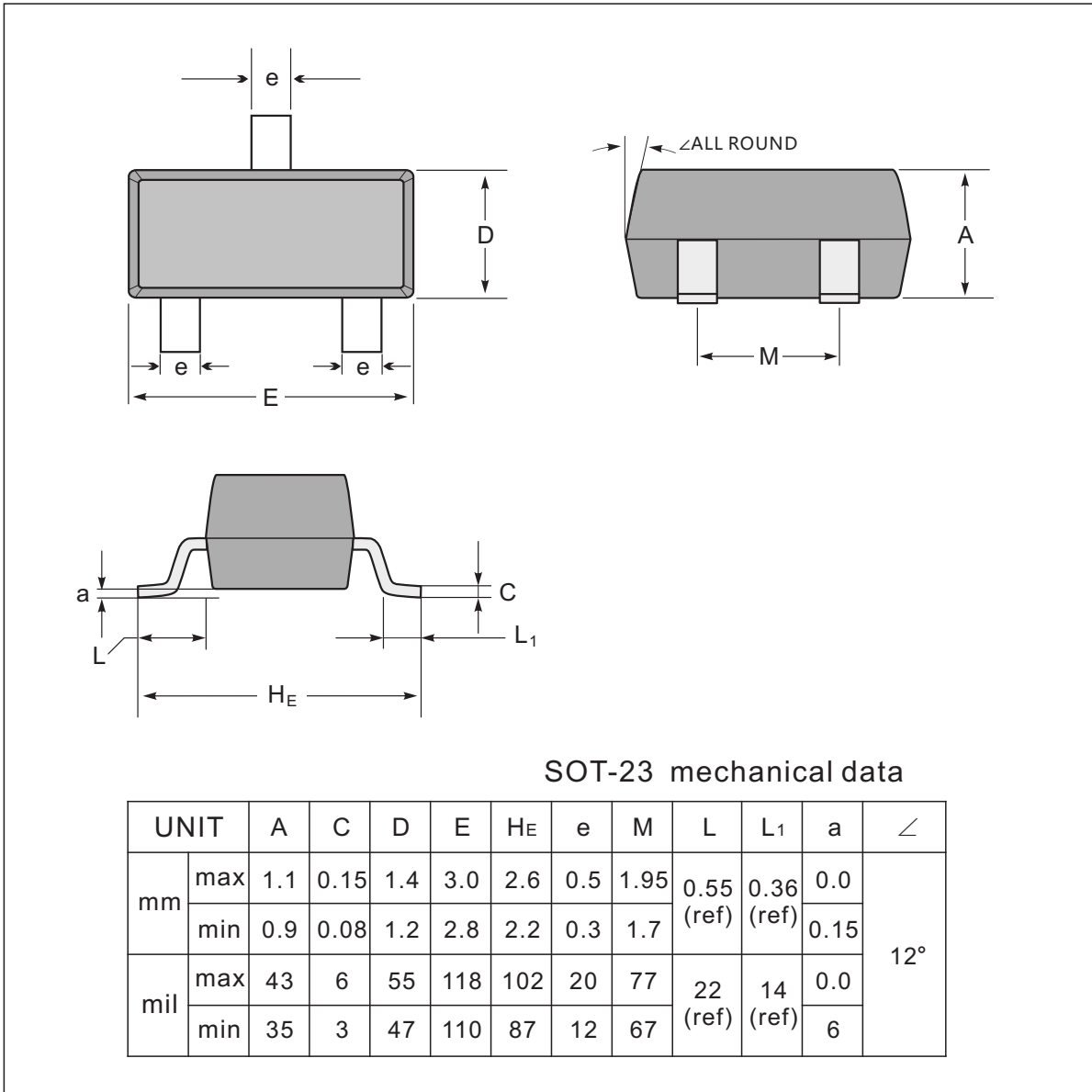
CLASSIFICATION OF hFE(1)

HFE	100-300	
RANK	L	H
RANGE	100-200	200-300

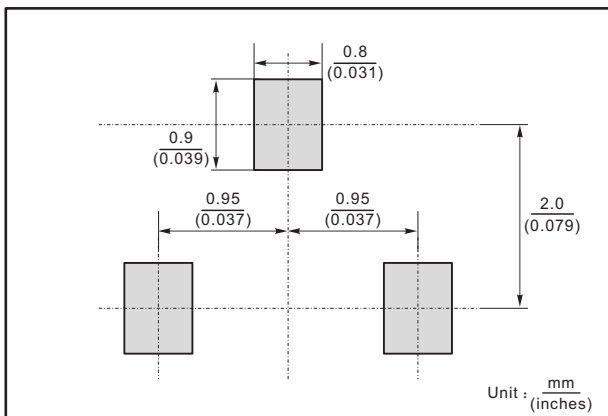
TYPICAL CHARACTERISTICS



SOT-23 Package Outline Dimensions



The recommended mounting pad size

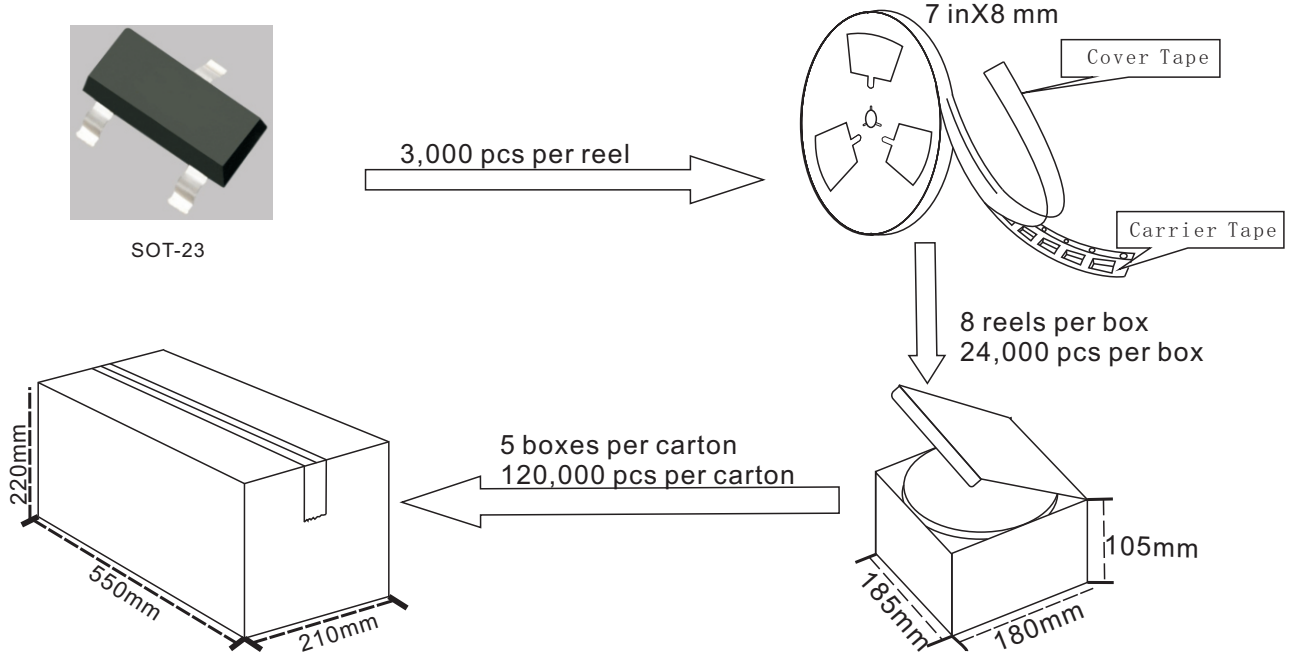


Marking

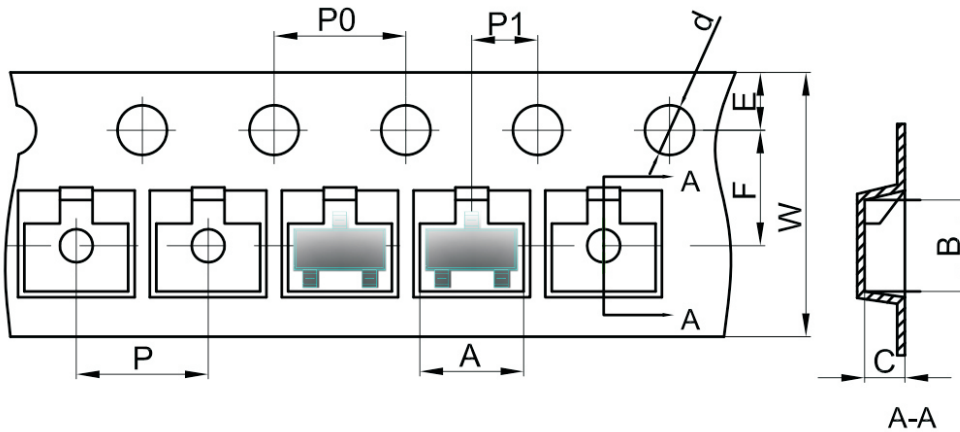
Type number	Marking code
MMBT3906	2A

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

