



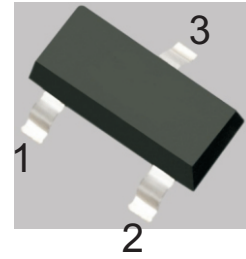
MMBT2907A

PNP TRANSISTOR

FEATURES

- Epitaxial planar die construction
- Complementary NPN Type available(MMBT2222A)

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}	-60	V
Collector-Emitter Voltage	V _{CEO}	-60	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current — Continuous	I _c	-600	mA
Total Device Dissipation	P _D	250	mW
Thermal Resistance From Junction To Ambient	R _{thJA}	500	°C/W
Operation Junction and Storage Temperature Range	T _J , T _{stg}	-55~+150	°C

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

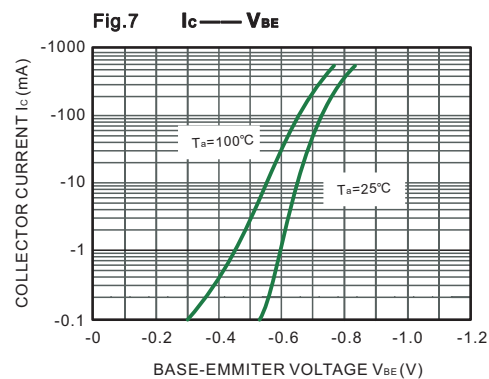
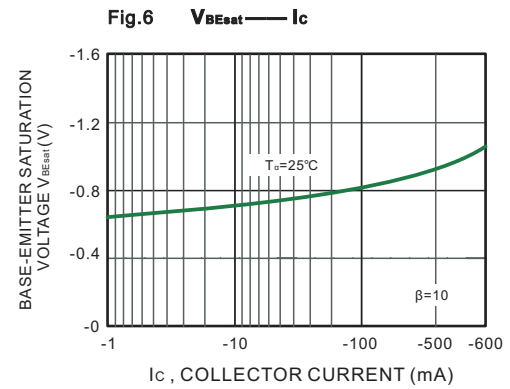
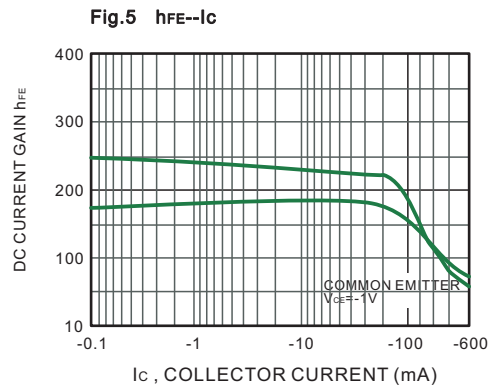
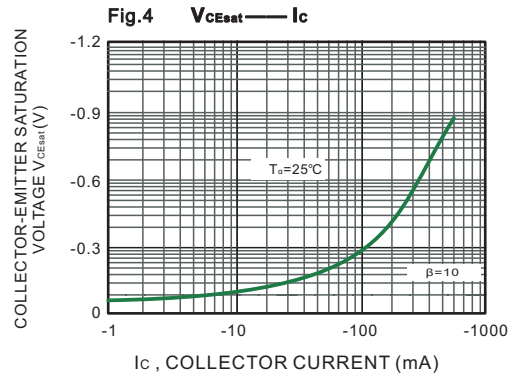
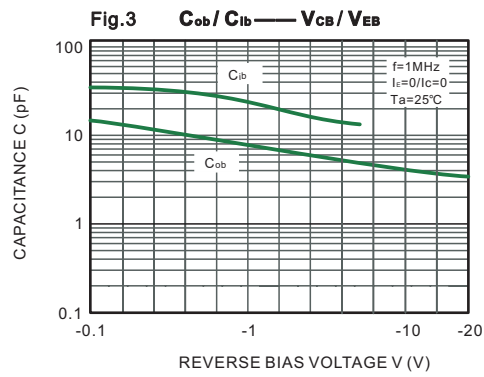
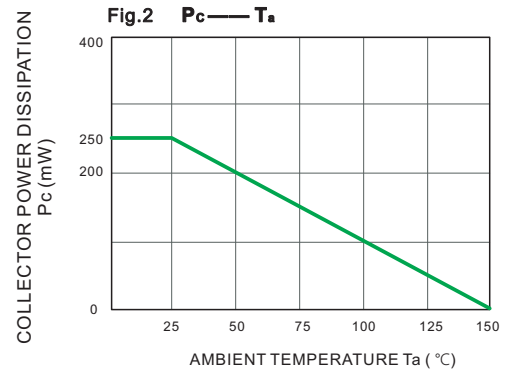
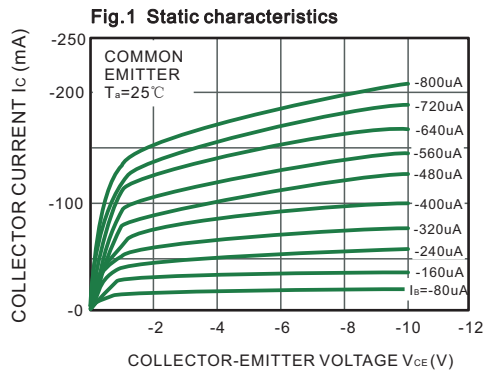
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _c = -10uA, I _E = 0	-60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _c = -10mA, I _B = 0	-60			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = -10uA, I _c = 0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} = -50V, I _E = 0			-20	nA
Base cut-off current	I _{EBO}	V _{EB} = -3V, I _c = 0			-10	nA
Collector cut-off current	I _{CEx}	V _{CE} = -30V, V _{BE} = -0.5V			-50	nA
DC current gain	h _{FE1}	V _{CE} = -10V, I _c = -150mA	100		300	
	h _{FE2}	V _{CE} = -10V, I _c = -0.1mA	75			
	h _{FE3}	V _{CE} = -10V, I _c = -1mA	100			
	h _{FE4}	V _{CE} = -10V, I _c = -10mA	100			
	h _{FE5}	V _{CE} = -10V, I _c = -500mA	50			
Collector-emitter saturation voltage	V _{CE(sat)}	I _c = -150mA, I _B = -15mA			-0.4	V
	V _{CE(sat)}	I _c = -500mA, I _B = -50mA			-1.6	V
Base-emitter saturation voltage	V _{BE(sat)}	I _c = -150mA, I _B = -15mA			-1.3	V
	V _{BE(sat)}	I _c = -500mA, I _B = -50mA			-2.6	V
Transition frequency	f _T	V _{CE} = -20V, I _c = -50mA, f = 100MHz	200			MHz
Delay time	t _d	V _{CE} = -30V, I _c = -150mA, I _{B1} = -15mA			10	ns
Rise time	t _r				25	ns
Storage time	t _s	V _{CE} = -6V, I _c = -150mA			225	ns
Fall time	t _f	I _{B1} = -I _{B2} = -15mA			60	ns

CLASSIFICATION OF hFE(1)

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

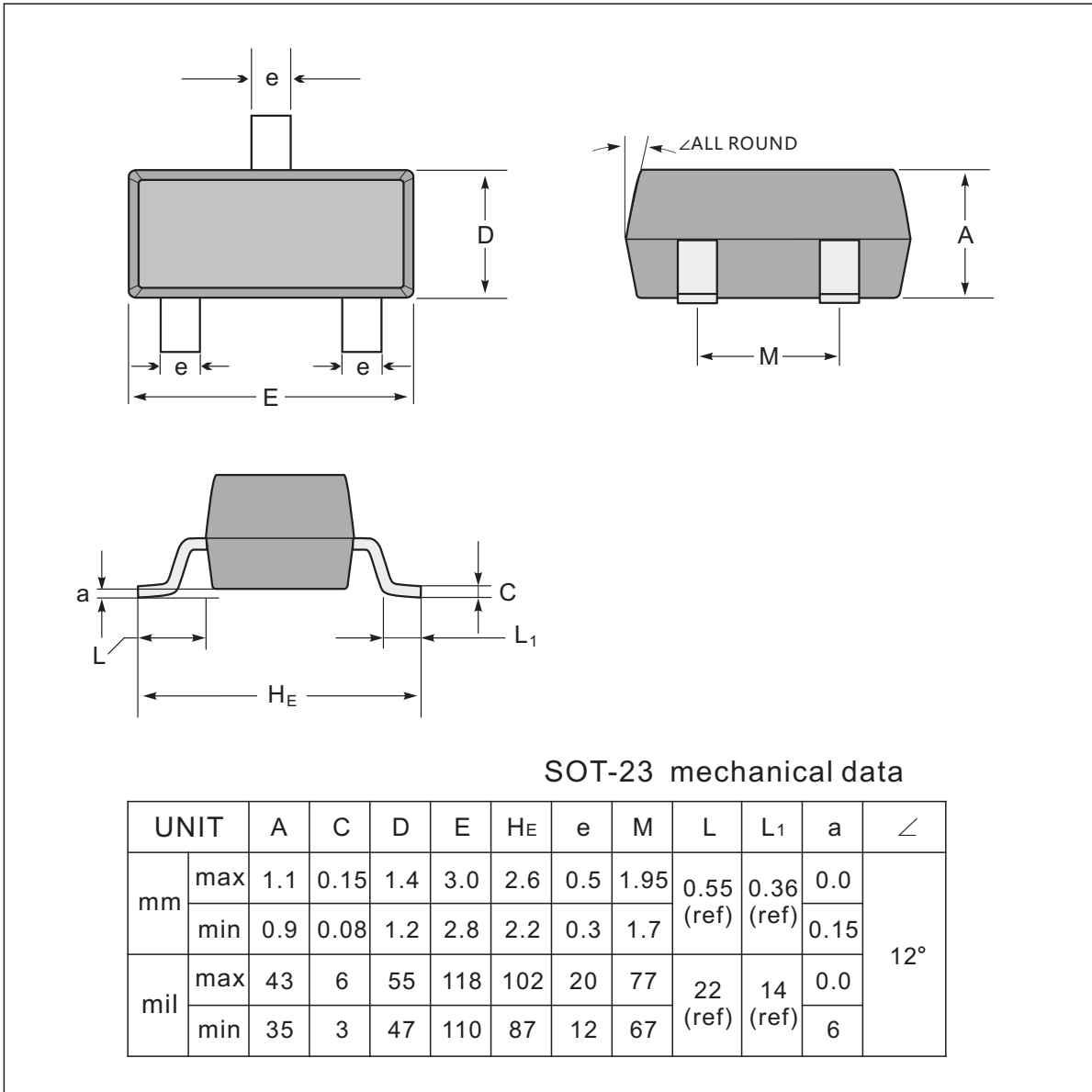


TYPICAL CHARACTERISTICS

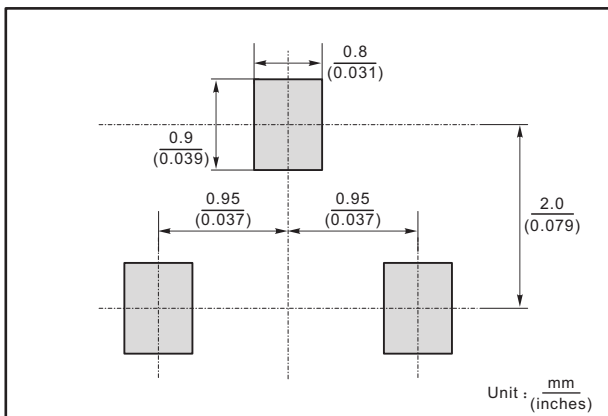




SOT-23 Package Outline Dimensions



The recommended mounting pad size



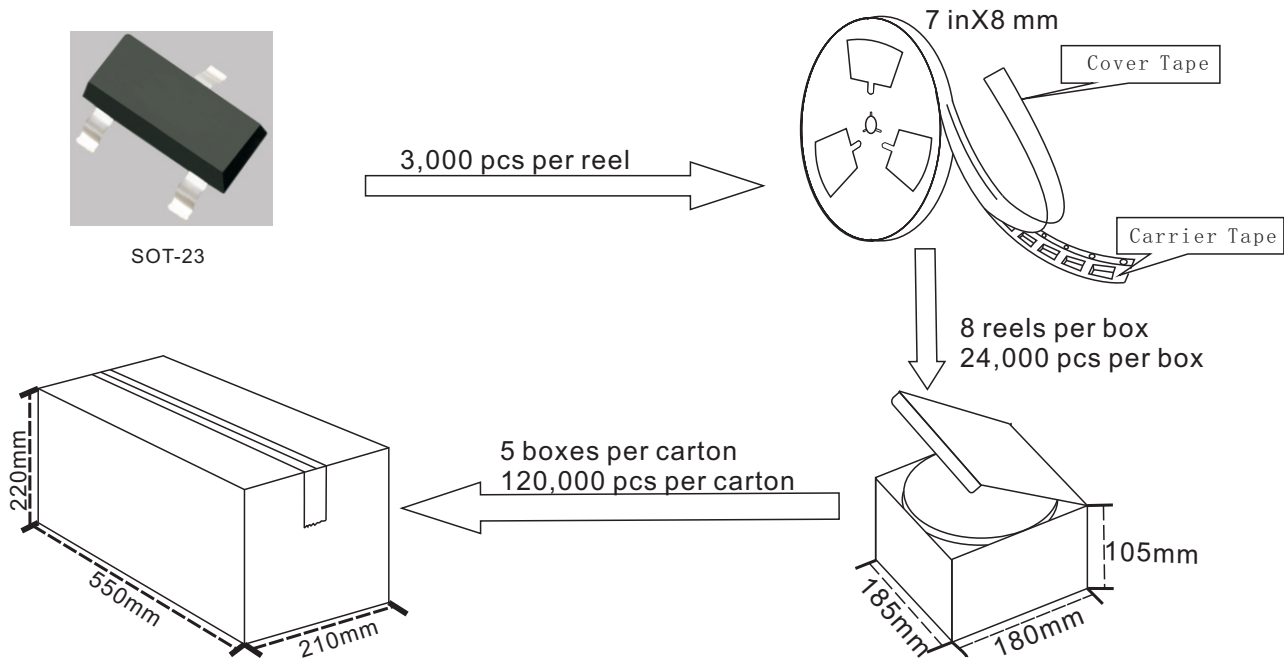
Marking

Type number	Marking code
MMBT2907A	2F

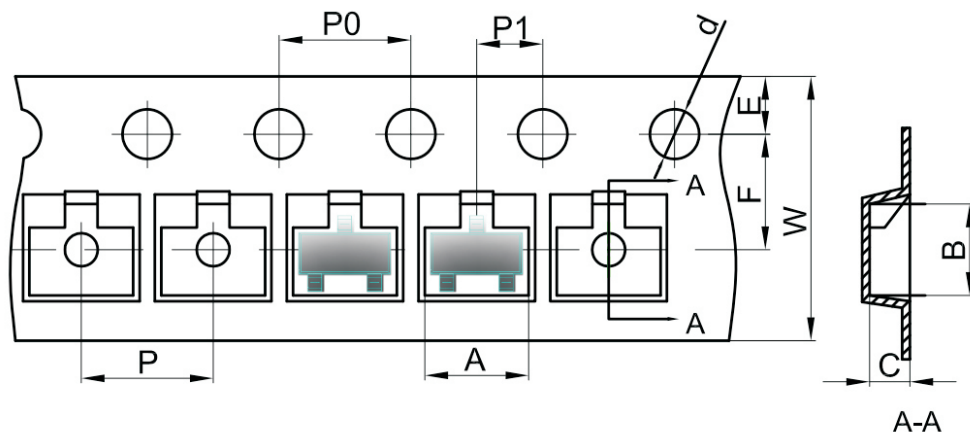


SOT-23 Packing

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

