



MMBT5401

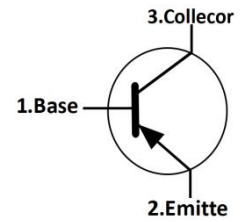
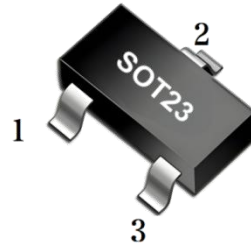
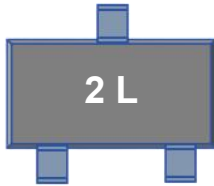
PNP SILICON TRANSISTOR

FEATURES

- * Complementary to MMBT5551
- * Ideal for Medium Power Amplification and Switching

MARKING

Type Code: Marking: 2 L



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

SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	Collector-base voltage	-160	V
V _{CEO}	Collector-emitter voltage	-150	V
V _{EBO}	Emitter-base voltage	-5	V
I _C	Collector current	-0.6	A
P _C	Collector Power Dissipation	350	mW
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C
ROJA	Thermal Resistance From Junction To Ambient	416	°C/W

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

ELECTRICAL CHARACTERISTICS (Tc=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-100μA, I _E =0	-160		V
Collector-emitter breakdown voltage	V _{(BR)CEO} *	I _C =-1mA, I _B =0	-150		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-100μA, I _C =0	-5		V
Collector cutoff current	I _{CBO}	V _{CB} =-120V, I _E =0		-0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-4V, I _C =0		-0.1	μA
DC Current Gain (CLASSIFICATION OF h _{FE2})	h _{FE1} *	V _{CE} =-5V, I _C =-1mA	80		
	h _{FE2} *	V _{CE} =-5V, I _C =-10mA	A	100	200
			B	200	300
	h _{FE3} *	V _{CE} =-5V, I _C =-50mA	50		
Collector-emitter saturation voltage	V _{CE(sat)} *	I _C =-10mA, I _B =-1mA		-0.2	V
	V _{CE(sat)} *	I _C =-50mA, I _B =-5mA		-0.5	V
Base-Emitter Saturation Voltage	V _{BE(sat)} *	I _C =-10mA, I _B =-1mA		-1	V
	V _{BE(sat)} *	I _C =-50mA, I _B =-5mA		-1	V
Transition frequency	f _T	V _{CE} =-6V, I _C =-20mA, f=30MHz	150		MHz

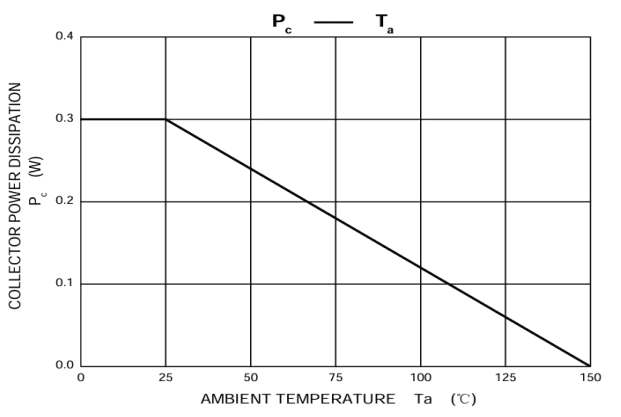
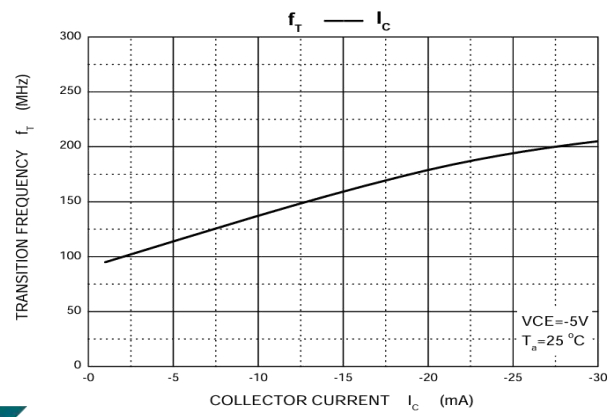
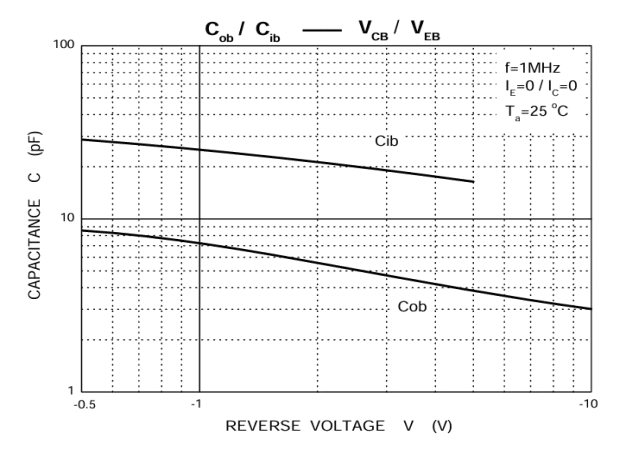
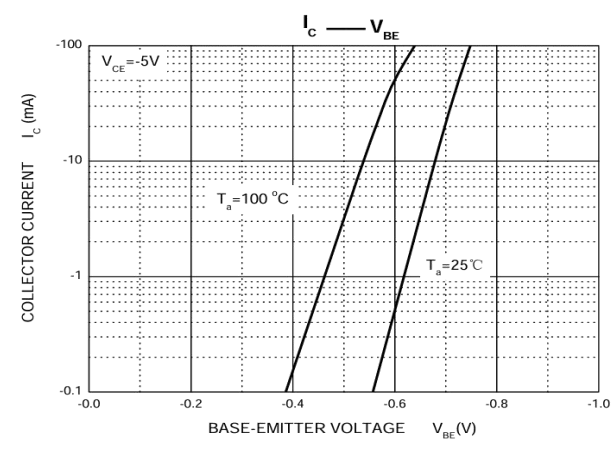
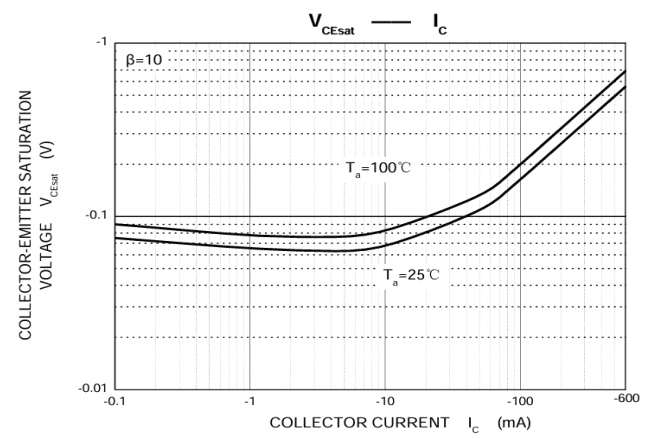
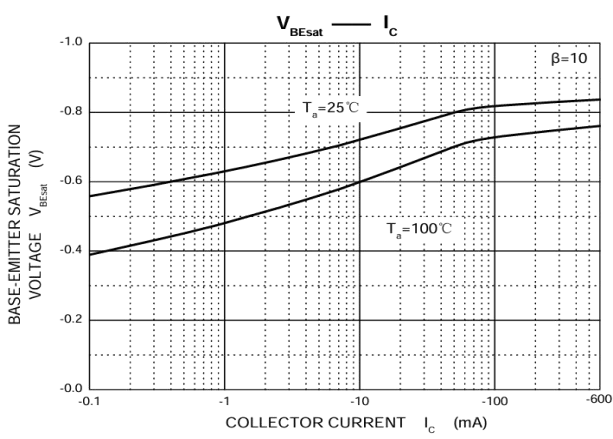
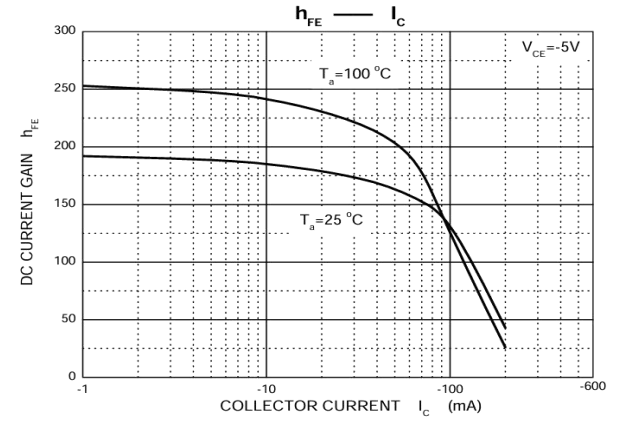
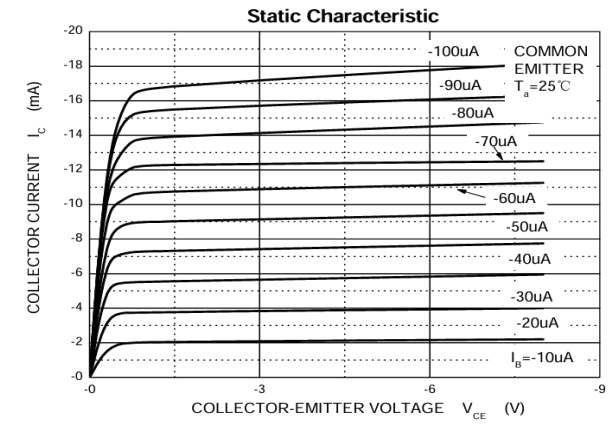
*Note: Pulse test: PW<300μs, Duty Cycle<2%.



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PNP SILICON TRANSISTOR

TYPICAL CHARACTERISTICS





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PNP SILICON TRANSISTOR

SOT23 PACKAGE OUTLINE DIMENSIONS

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Note:
1. Controlling dimension: in millimeters.
2. General tolerance: ±0.05mm.
3. The pad layout is for reference purposes only.

REEL PACKING

Top cover tape thickness
0.10 mm (0.004") max. thick

Embossed carrier tape

Trailer Tape
50±2 Empty Pockets

Components

Leader Tape
100±2 Empty Pockets

Dimensions: P0, P1, A, B, C, D, E, F, W, W1, W2, H, L, G, D1, D2

Dimensions are in millimeter										
PKG TYPE	A	B	C	d	E	F	Po	P	P1	W
SOT-23	3.15	2.77	1.22	Φ1.50	1.75	3.50	4.00	4.00	2.00	8.00
Reel Optiom	D	D1	D2	G	H	I	W1	W2	Q.TY PER REEL	
7" Dia	Φ178.0	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30	3000PCS	
13" Dia	φ330.0	/	13.00	/	/	R6.50	9.50	12.30	10000PCS	