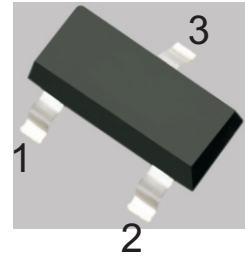


MMBT5401
PNP TRANSISTOR
FEATURES

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

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}	-160	V
Collector–Emitter Voltage	V_{CEO}	-150	V
Emitter–Base Voltage	V_{EBO}	-5	V
Collector Current — Continuous	I_C	-0.6	A
Collector Dissipation	P_C	0.3	W
Thermal Resistance From Junction To Ambient	R_{thJA}	416	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55~+150	°C

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

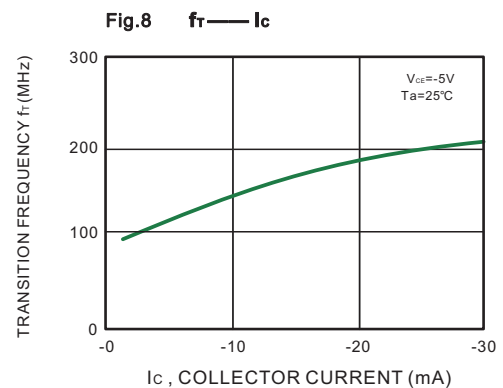
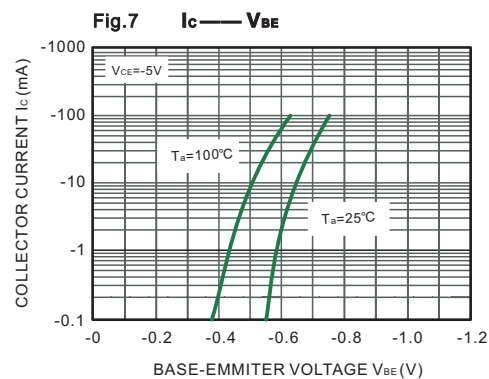
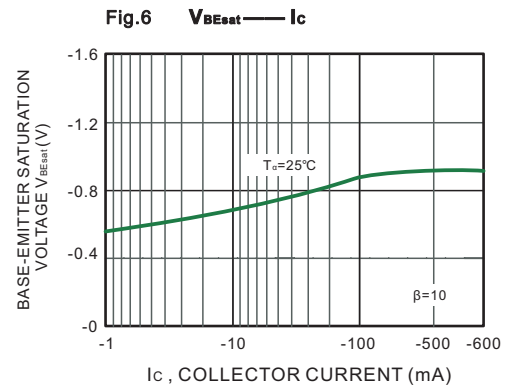
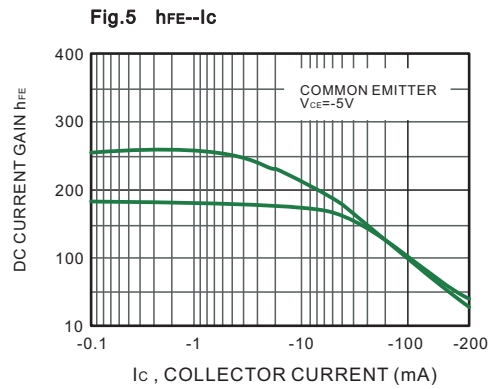
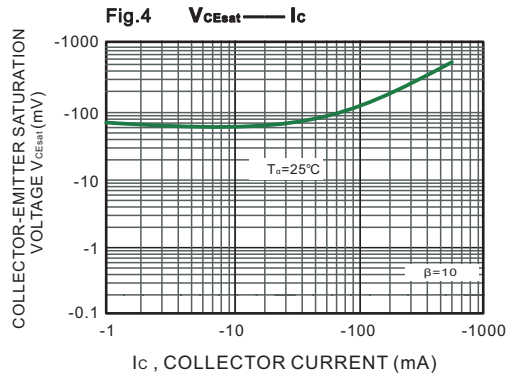
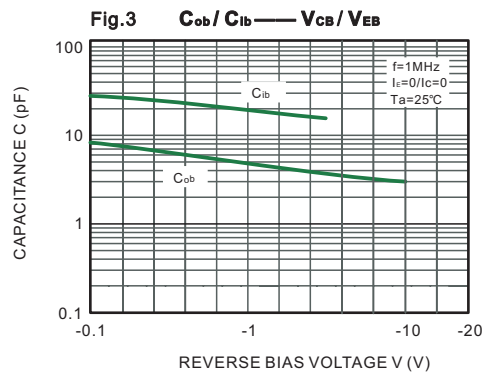
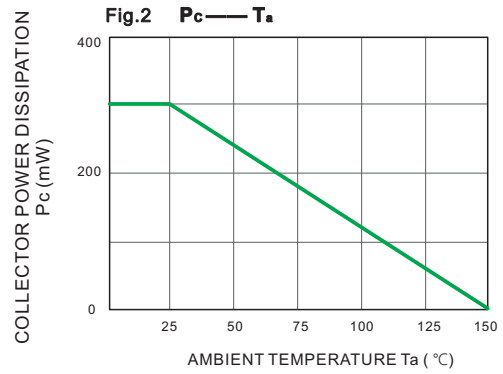
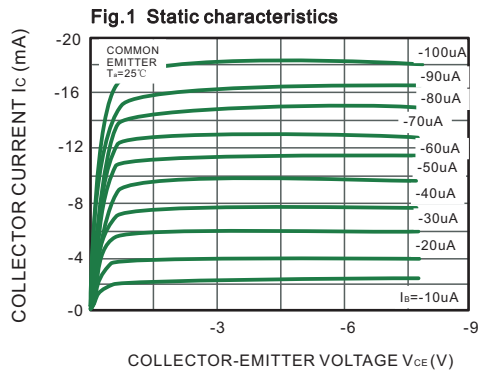
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{ mA}, I_B = 0$	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Collector cut-off 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	h_{FE1}	$V_{CE} = -5V, I_C = -1\text{ mA}$	80			
	h_{FE2}	$V_{CE} = -5V, I_C = -10\text{ mA}$	100		300	
	h_{FE3}	$V_{CE} = -5V, I_C = -50\text{ mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = -10\text{ mA}, I_B = -1\text{ mA}$			-0.2	V
	$V_{CE(sat)2}$	$I_C = -50\text{ mA}, I_B = -5\text{ mA}$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C = -10\text{ mA}, I_B = -1\text{ mA}$			-1	V
	$V_{BE(sat)2}$	$I_C = -50\text{ mA}, I_B = -5\text{ mA}$			-1	V
Transition frequency	f_T	$V_{CE} = -25V, I_C = -10\text{ mA}, f = 30\text{ MHz}$	100			MHZ

CLASSIFICATION OF $h_{FE(1)}$

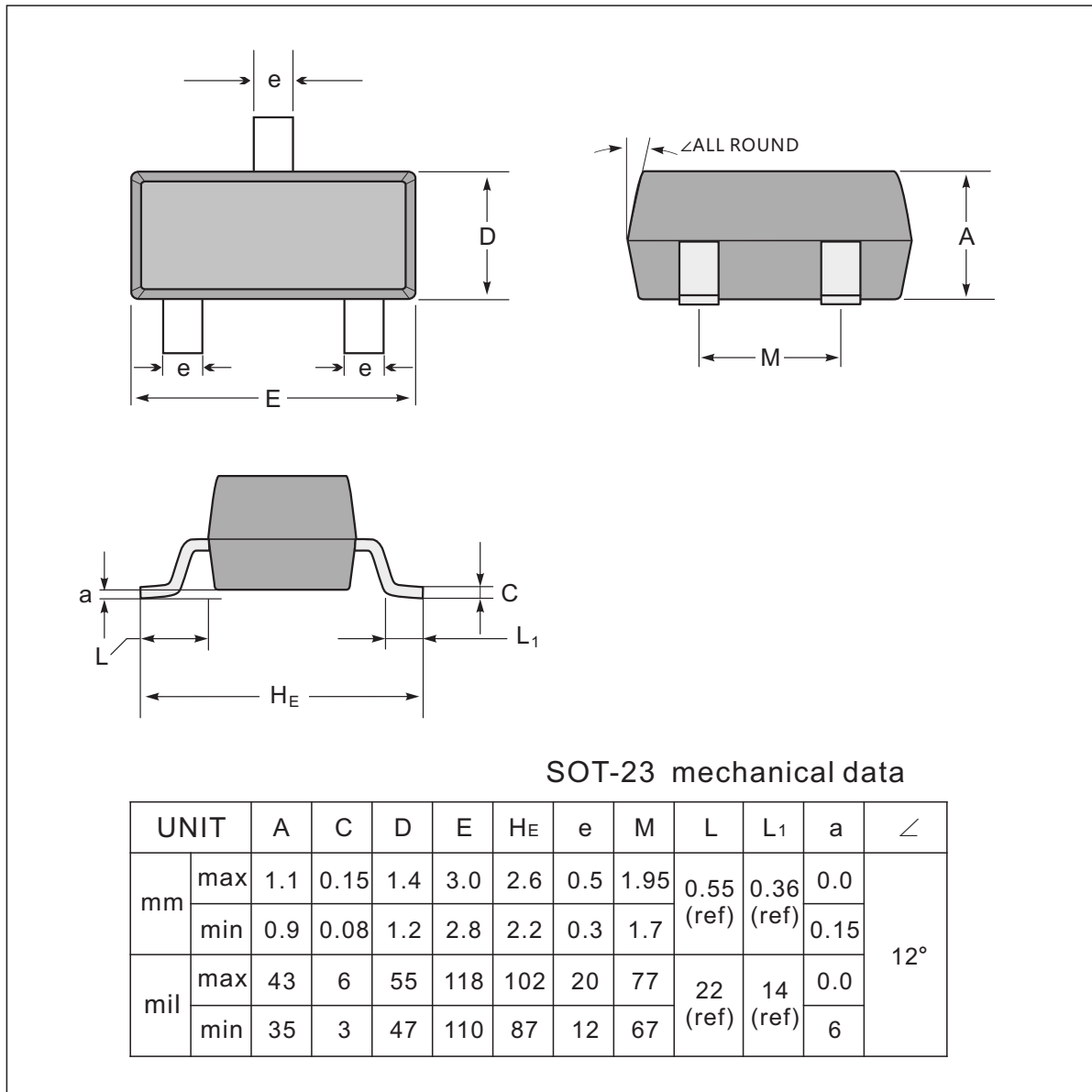
RANK	L	H
RANGE	100-200	200-300



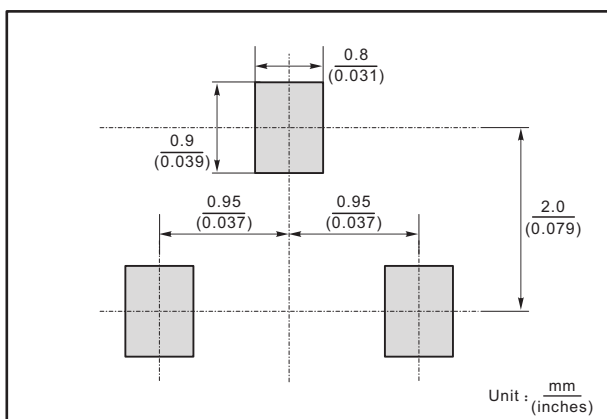
TYPICAL CHARACTERISTICS



SOT-23 Package Outline Dimensions



The recommended mounting pad size

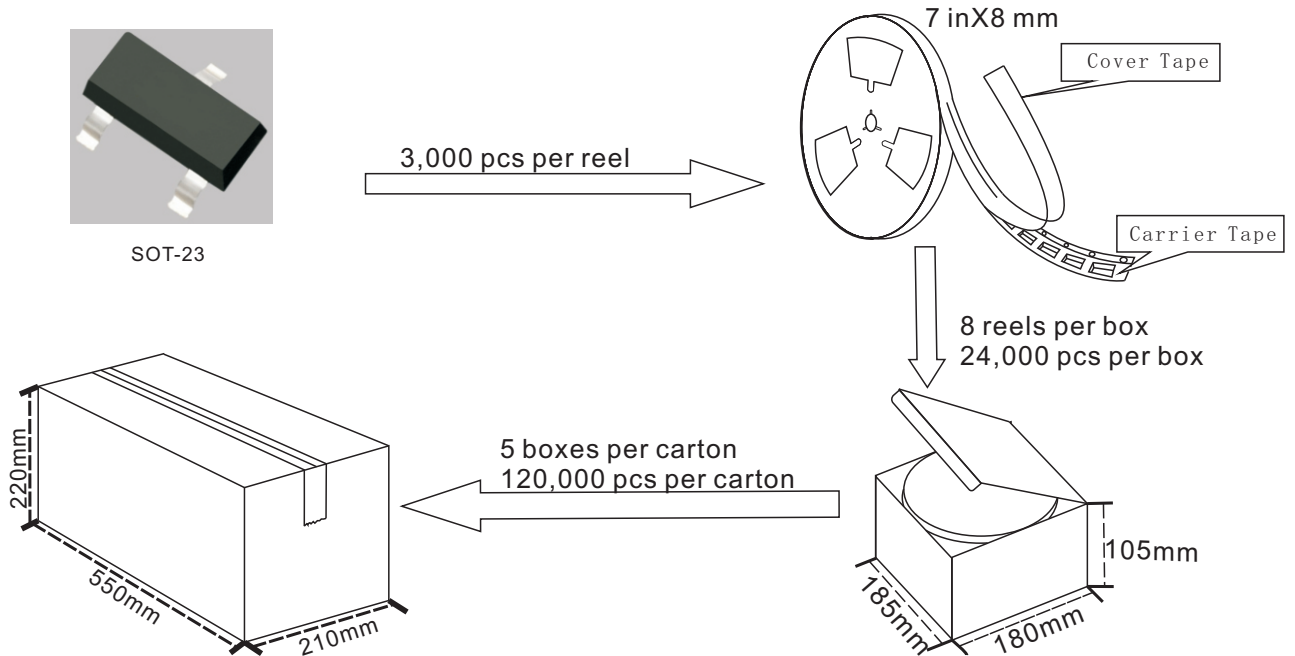


Marking

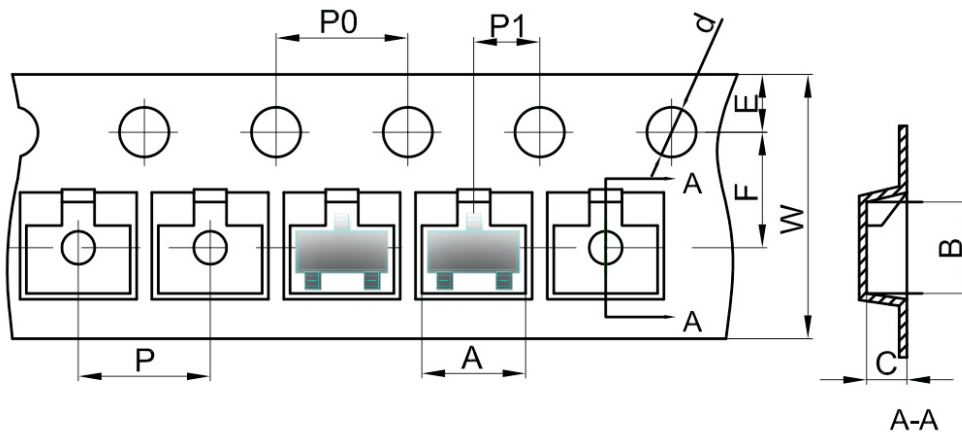
Type number	Marking code
MMBT5401	2L

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

