



**浩畅半导体**  
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**MMBT4403** TRANSISTOR (PNP)

**SOT-23 Plastic-Encapsulate Transistors**

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客户确认：

公司签章：

部门

工程部

品保部

采购部

签名

日期



**SOT-23 Plastic-Encapsulate Transistors**

**MMBT4403** TRANSISTOR (PNP)

**FEATURES**

Switching transistor

**MARKING : MMBT4403=2T**

**MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)**

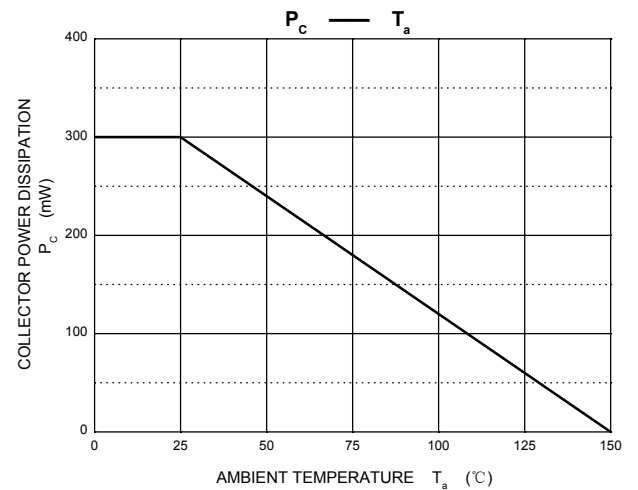
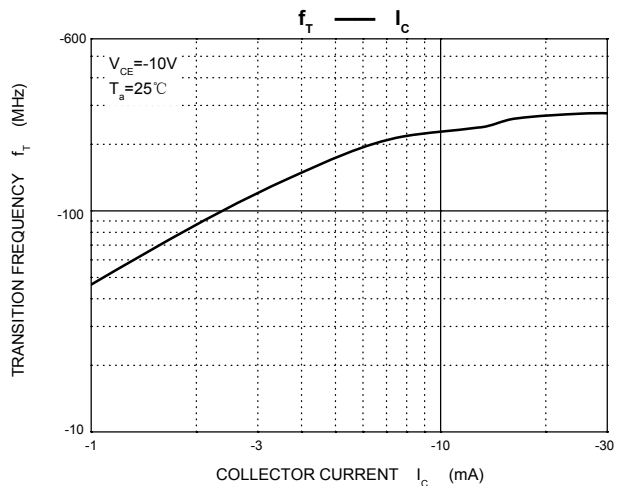
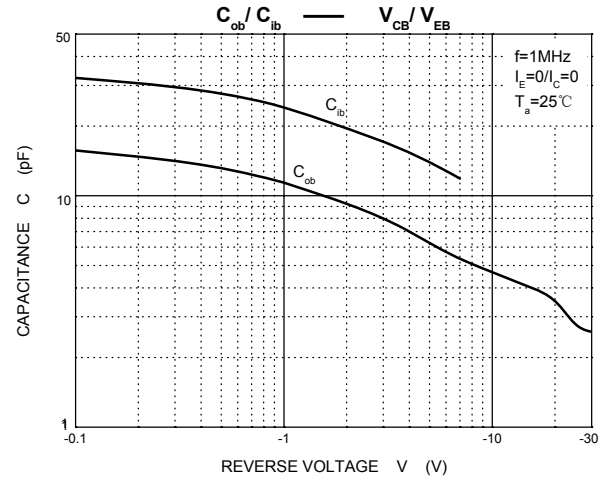
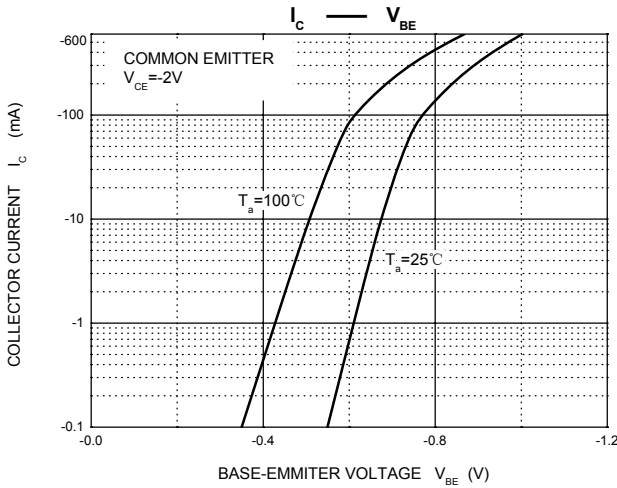
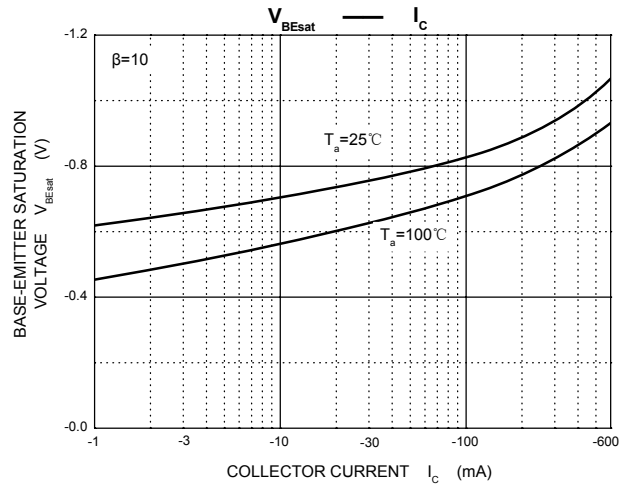
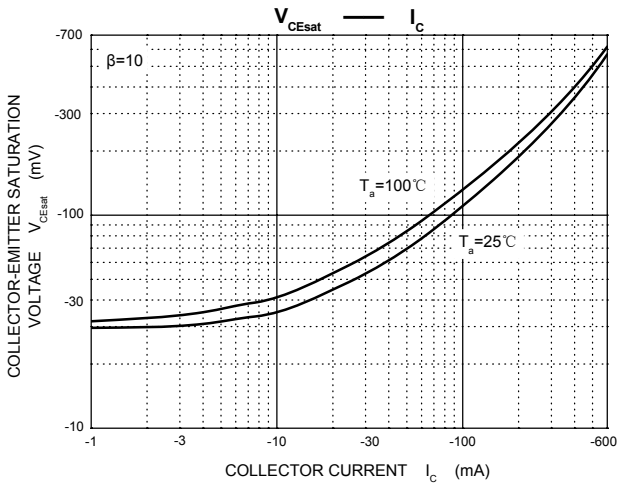
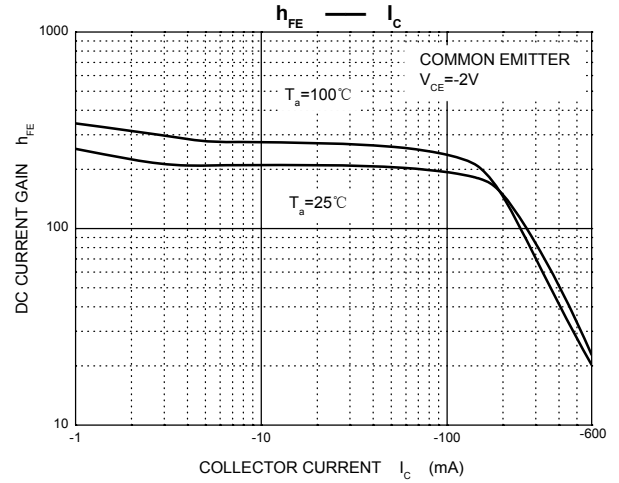
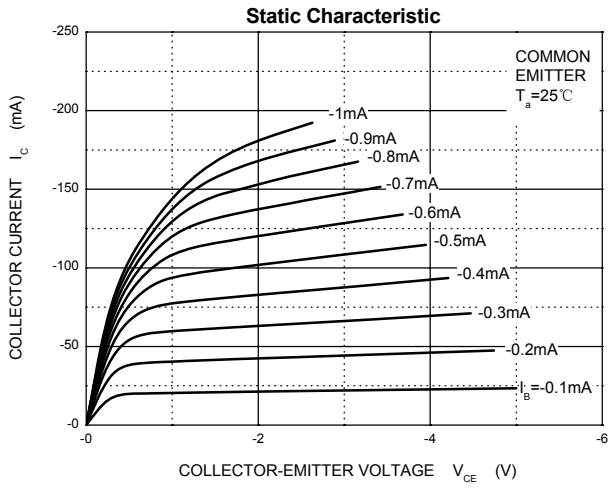
Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector-Base Voltage	-40	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-40	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current -Continuous	-0.6	A
P <sub>C</sub>	Collector Power Dissipation	0.3	W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55-150	°C



**ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =-100μA, I <sub>E</sub> =0	-40		V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA, I <sub>B</sub> =0	-40		V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-100μA, I <sub>C</sub> =0	-5		V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-35V, I <sub>E</sub> =0		-0.1	μA
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> =-35 V, I <sub>B</sub> =0		-0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =-4V, I <sub>C</sub> =0		-0.1	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =-2V, I <sub>C</sub> = -150mA	100	300	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-150mA, I <sub>B</sub> =-15mA		-0.4	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =- 150mA, I <sub>B</sub> =-15mA		-0.95	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -20mA f = 100MHz	200		MHz

# Typical Characteristics

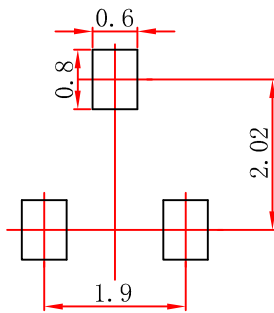


## SOT-23 Package Outline Dimensions



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°

## SOT-23 Suggested Pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.