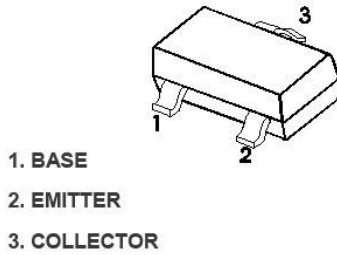


SOT-23



MARKING:2L

特征 Features

- 与MMBT5551配对;Complementary to MMBT5551
- 最大功率耗散 300mW; Power Dissipation of 300mW
- 高稳定性和可靠性。High Stability and High Reliability

机械数据 Mechanical Data

- 封装: SOT-23 封装 SOT-23 Small Outline Plastic Package
- 环氧树脂UL 易燃等级Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any
- Device meets MSL 1 requirements

极限值和温度特性(TA = 25℃ 除非另有规定)

Maximum Ratings & Thermal Characteristics (TA=25℃ unless otherwise specified)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
Collector-Base Voltage	VCBO	-160	V
Collector-Emitter Voltage	VCEO	-150	V
Emitter -Base Voltage	VEBO	-5	V
Collector Current-Continuous	IC	-600	mA
Collector Power Dissipation	PC	300	mW
Junction Temperature	Tj	150	℃
Storage Temperature	TSTG	-55-+150	℃
Thermal resistance from junction to ambient	RθJA	416	℃/W

电特性 Electrical Characteristics (TA=25℃ unless otherwise specified)

参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	IC=-100uA, IE=0	-160		V
Collector-emitter breakdown voltage	V(BR)CEO*	IC=-1mA, IB=0	-150		V
Emitter-base breakdown voltage	V(BR)EBO	IE=-10uA, IC=0	-5		V
Collector cut-off current	ICBO	VCB=-120V, IE=0		-100	nA
Emitter cut-off current	IEBO	VEB=-4V, IC=0		-100	nA

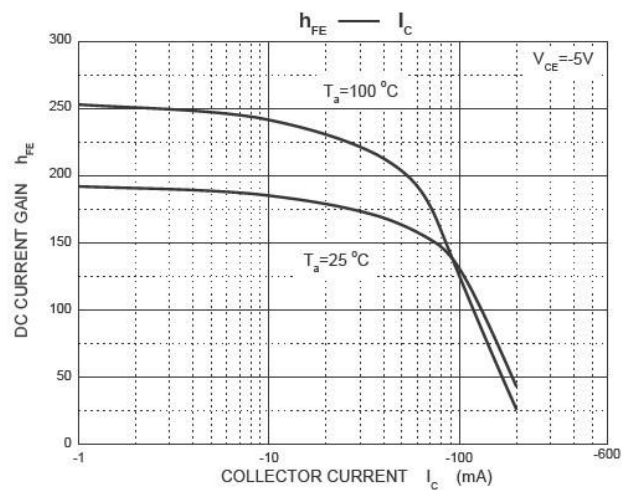
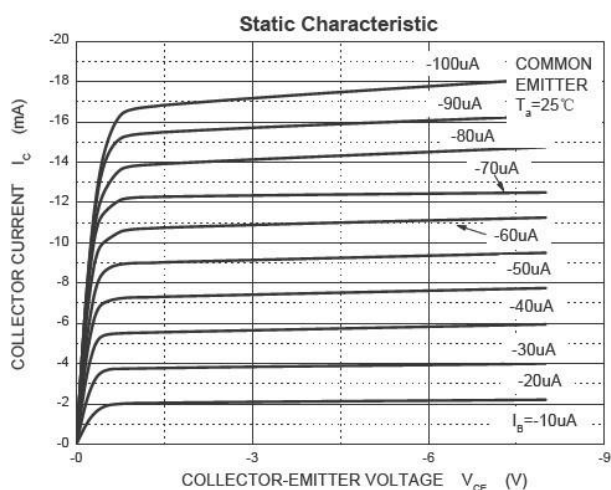
DC current gain	hFE(1)*	VCE=-5V, IC=-1mA	80		
	hFE(2)*	VCE=-5V, IC=-10mA	100	300	
	hFE(3)*	VCE=-5V, IC=-50mA	30		
Collector-emitter saturation voltage	VCE(sat)1*	IC=-10mA, IB=-1mA		-0.2	V
	VCE(sat)2*	IC=-50mA, IB=-5mA		-0.5	V
Base -emitter saturation voltage	VBE(sat)1*	IC=-10mA, IB=-1mA		-1.00	V
	VBE(sat)2*	IC=-50mA, IB=-5mA		-1.00	V
Transition frequency	fT	VCE=-5V, IC=-10mA, f=30MHz	100		MHz

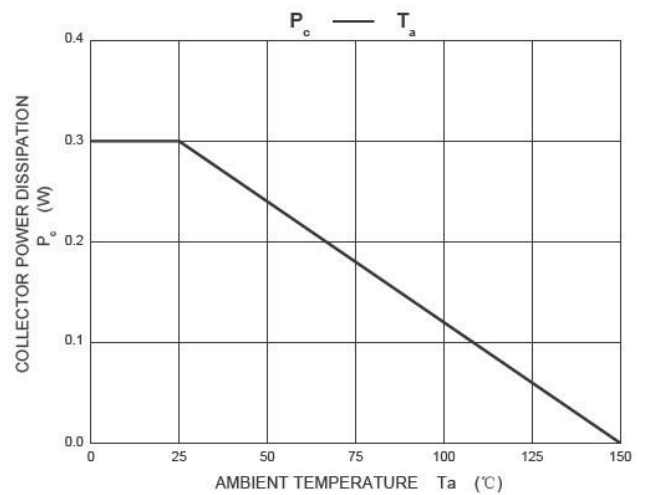
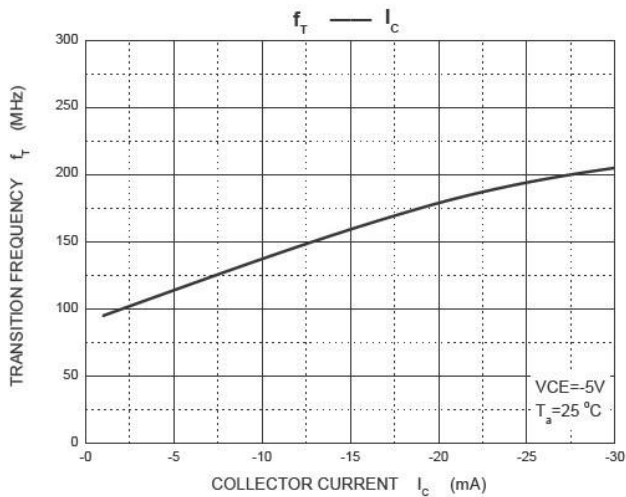
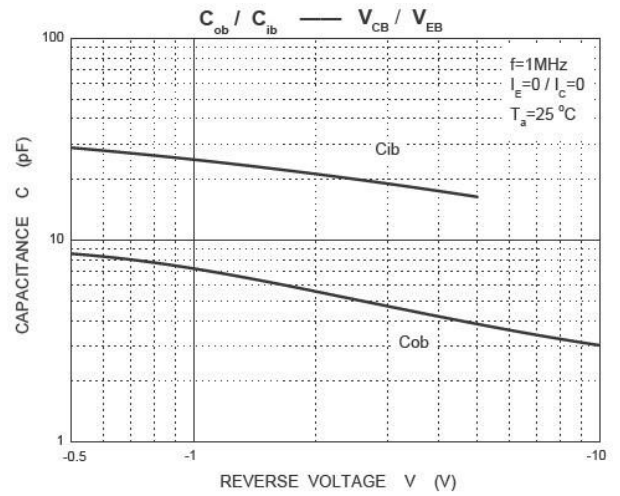
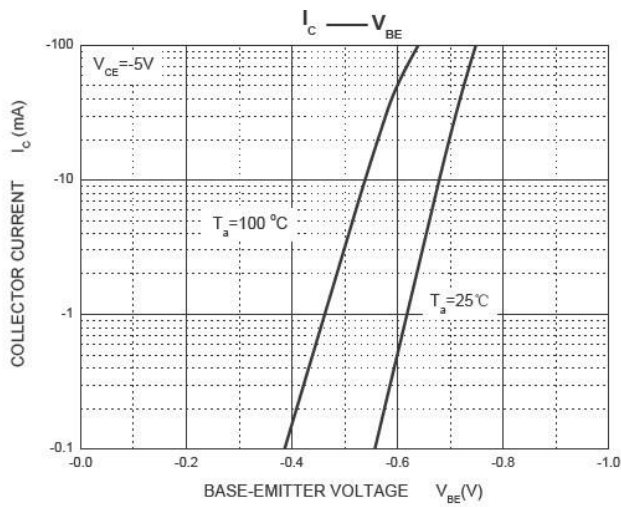
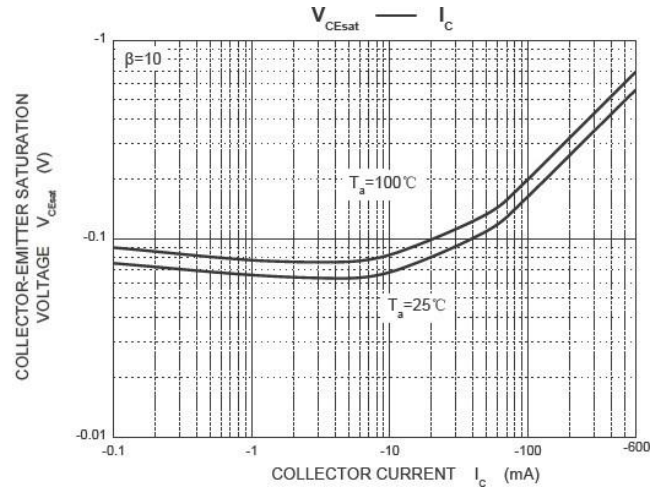
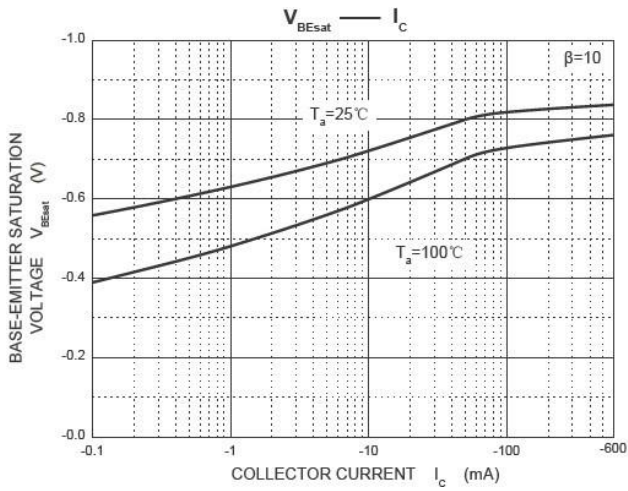
*Pulse test: pulse width≤300us, duty cycle≤2.0%

CLASSIFICATION OF hFE(1)

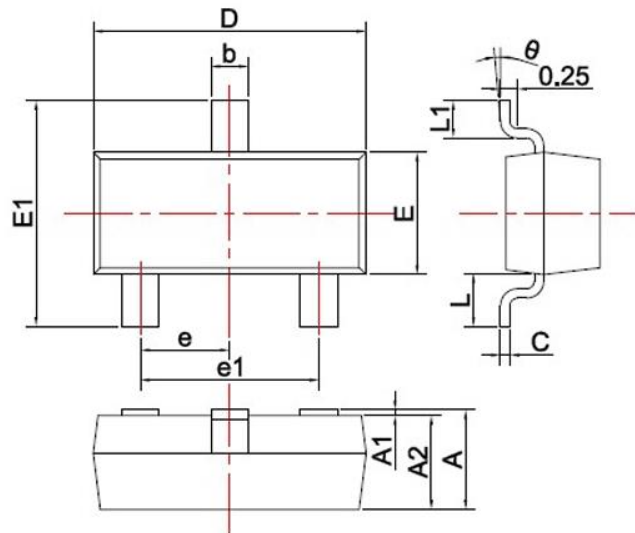
HFE	100-300	
RANK	L	H
RANGE	100-200	200-300

Typical Performance Characteristics (TA=25°C unless otherwise Specified)





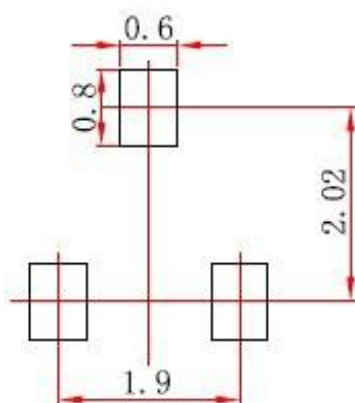
SOT-23 Package Outline Drawing



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

Suggested Land Pattern



Note:

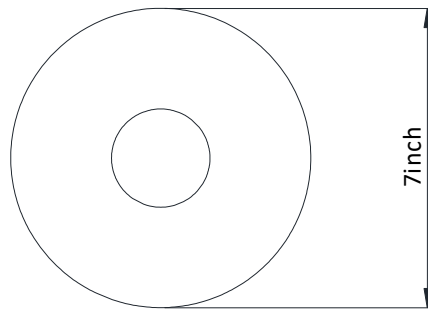
1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Ordering Information

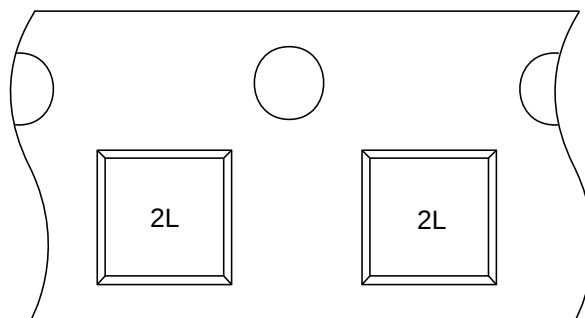
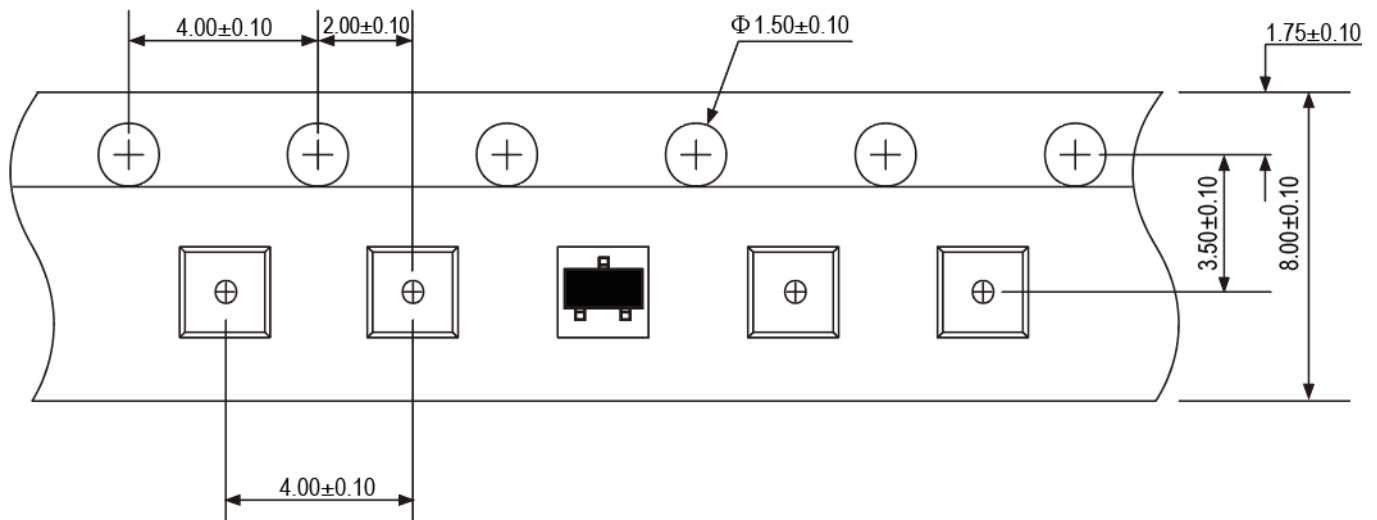
Part Number	Shipping	Reel Size
MMBT5401	3000/Tape & Reel	7 inch

Tape and Reel Information

Reel Dimensions



Tape Dimensions



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