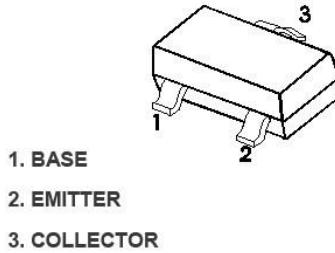


SOT-23



MARKING:G1

特征 Features

- 与MMBT5401配对; Complementary to MMBT5401
- 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	180	V
Collector-Emitter Voltage	VCEO	160	V
Emitter -Base Voltage	VEBO	6	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	180		V
Collector-emitter breakdown voltage	V(BR)CEO*	IC=1mA, IB=0	160		V
Emitter-base breakdown voltage	V(BR)EBO	IE=10uA, IC=0	6		V
Collector cut-off current	ICBO	VCB=120V, IE=0		50	nA
Emitter cut-off current	IEBO	VEB=4V, IC=0		50	nA

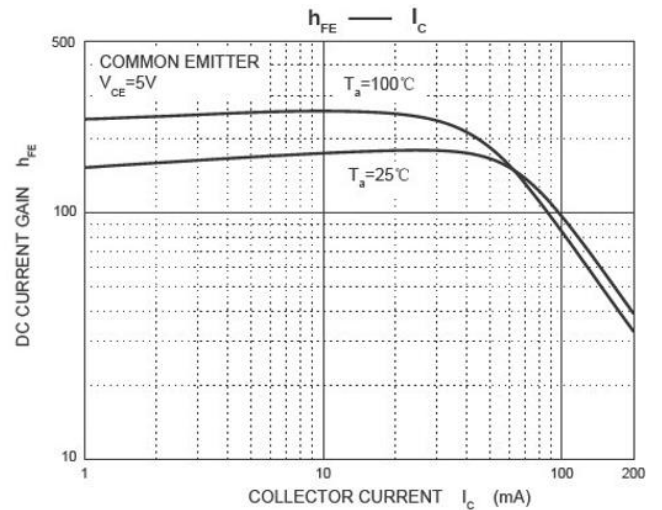
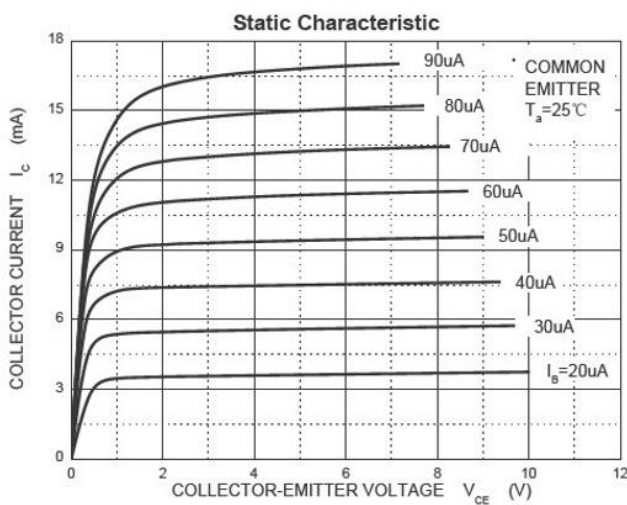
DC current gain	$h_{FE}(1)^*$	$V_{CE}=5V, I_C=1mA$	80		
	$h_{FE}(2)^*$	$V_{CE}=5V, I_C=10mA$	100	300	
	$h_{FE}(3)^*$	$V_{CE}=5V, I_C=50mA$	30		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$		0.15	V
		$I_C=50mA, I_B=5mA$		0.20	V
Base -emitter saturation voltage	$V_{BE(sat)}$	$I_C=10mA, I_B=1mA$		1.00	V
		$I_C=50mA, I_B=5mA$		1.00	V
Transition frequency	f_T	$V_{CE}=10V, I_C=10mA, f=100MHz$	100	300	MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		6	pF

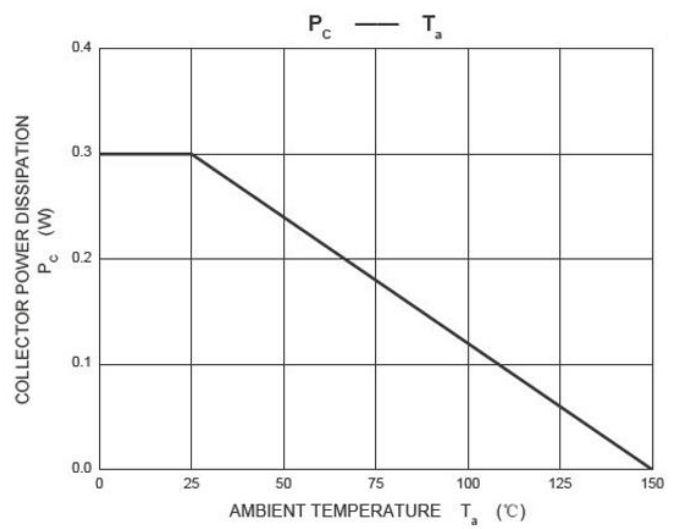
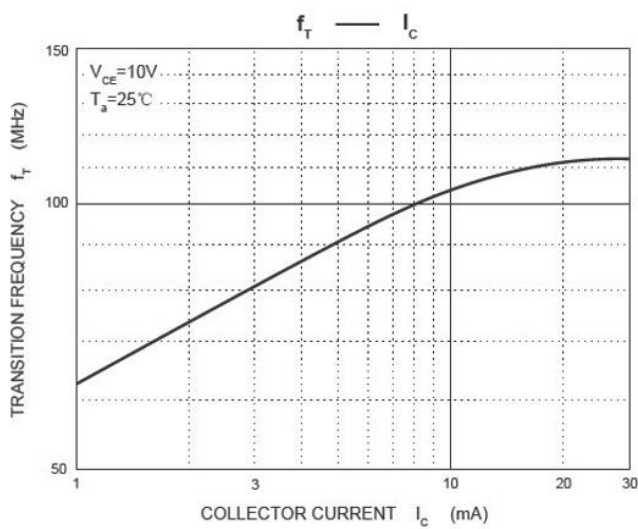
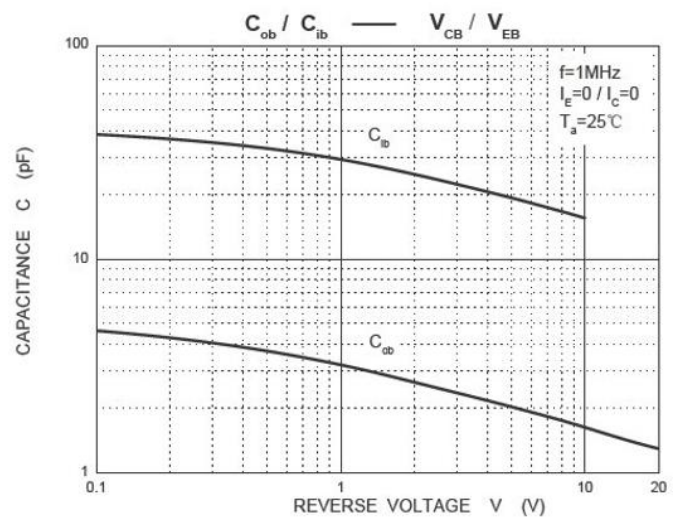
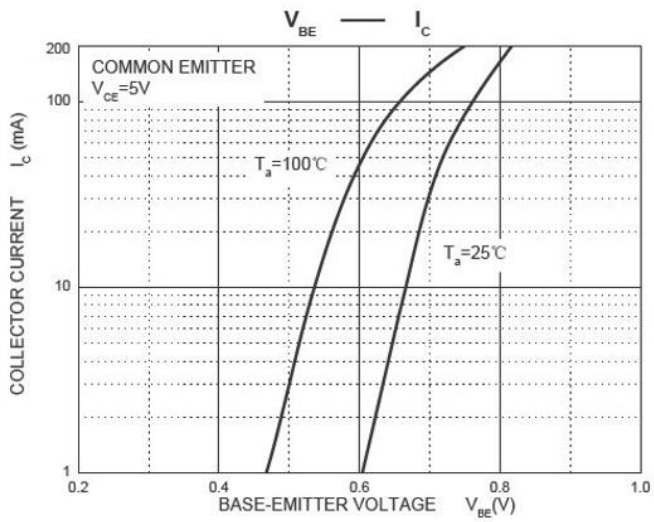
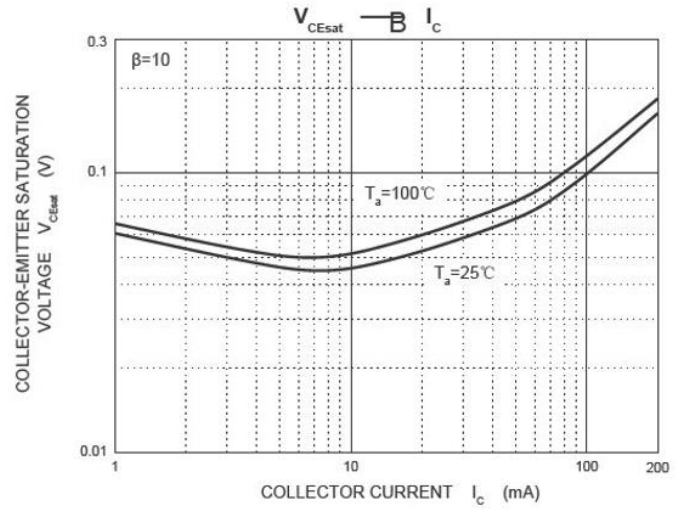
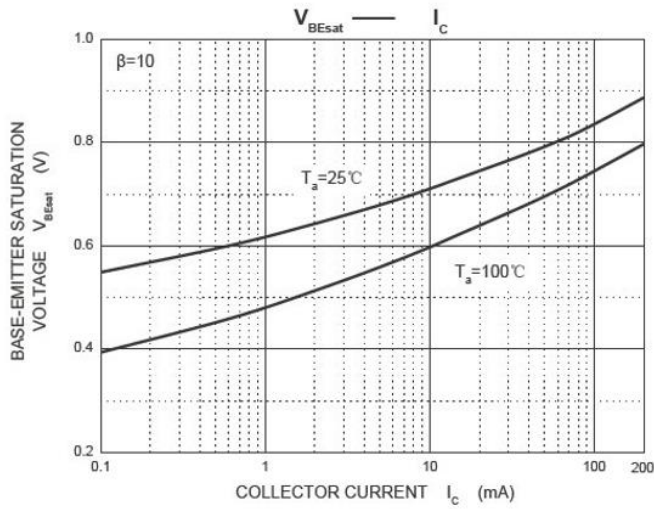
*Pulse test: pulse width $\leq$ 300us, duty cycle $\leq$ 2.0%

CLASSIFICATION OF $h_{FE}(2)$

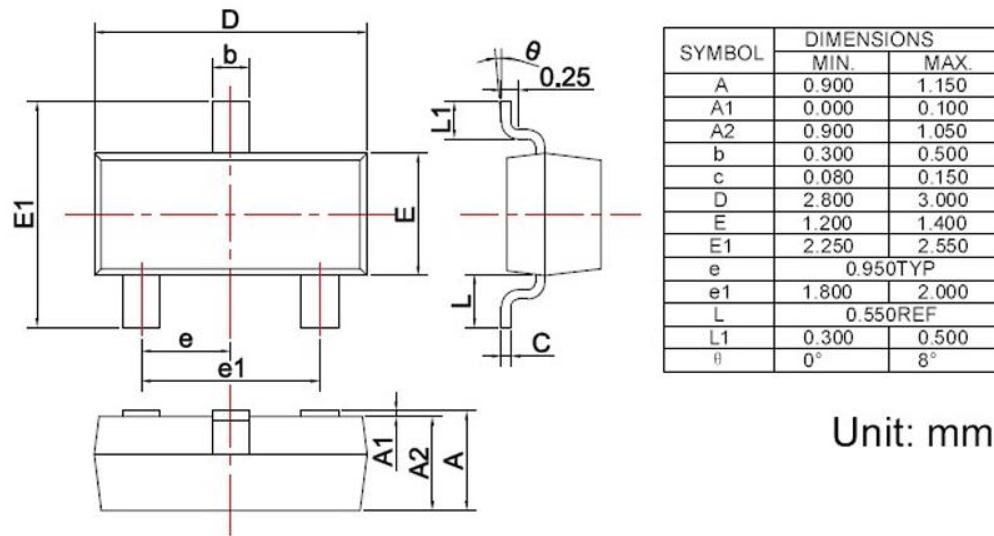
h_{FE}	100-300	
RANK	L	H
RANGE	100-200	200-300

Typical Performance Characteristics ($T_A=25^\circ C$ unless otherwise Specified)

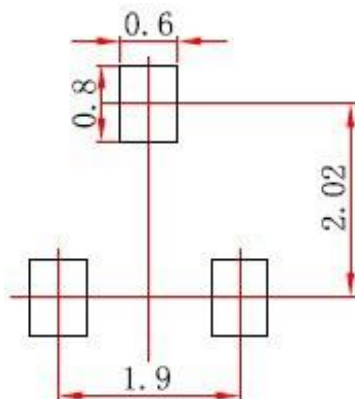




SOT-23 Package Outline Drawing



Suggested Land Pattern



Note:

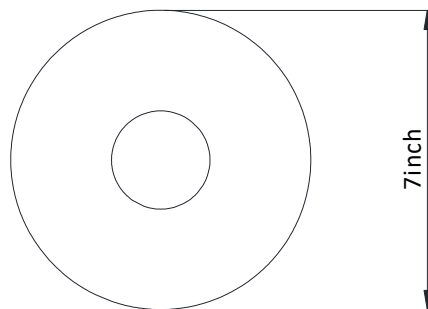
1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Ordering Information

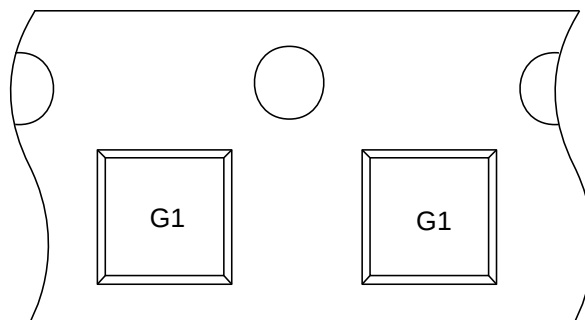
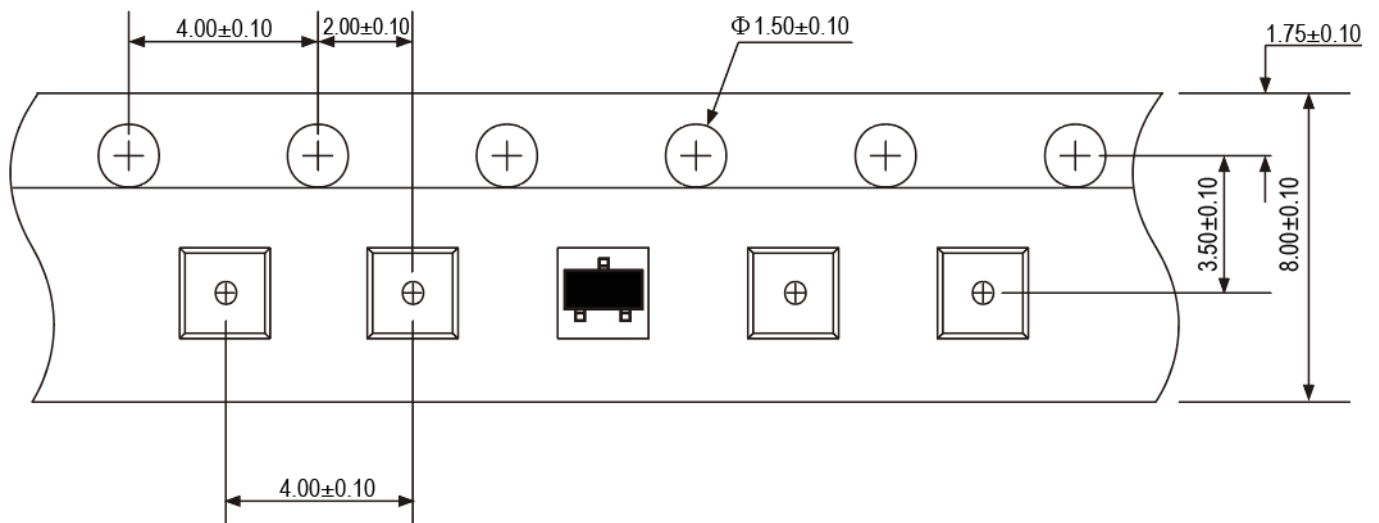
Part Number	Shipping	Reel Size
MMBT5551	3000/Tape & Reel	7 inch

Tape and Reel Information

Reel Dimensions



Tape Dimensions



User Direction of Feed

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