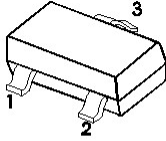




Tonghua Electronics

SOT-23



1. BASE

2. EMITTER

3. COLLECTOR

Marking: G1

MMBT5551 TRANSISTOR(NPN)

SOT-23 贴片塑封三极管

SOT-23 Plastic-Encapsulate Transistors

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

极限值和温度特性(TA = 25°C 除非另有规定)

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
Collector-Base Voltage	V _{CBO}	180	V
Collector-Emitter Voltage	V _{CEO}	160	V
Emitter -Base Voltage	V _{EBO}	6	V
Collector Current-Continuous	I _C	600	mA
Collector Power Dissipation	P _C	300	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}	416	°C/W

电特性 (TA = 25°C 除非另有规定)

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

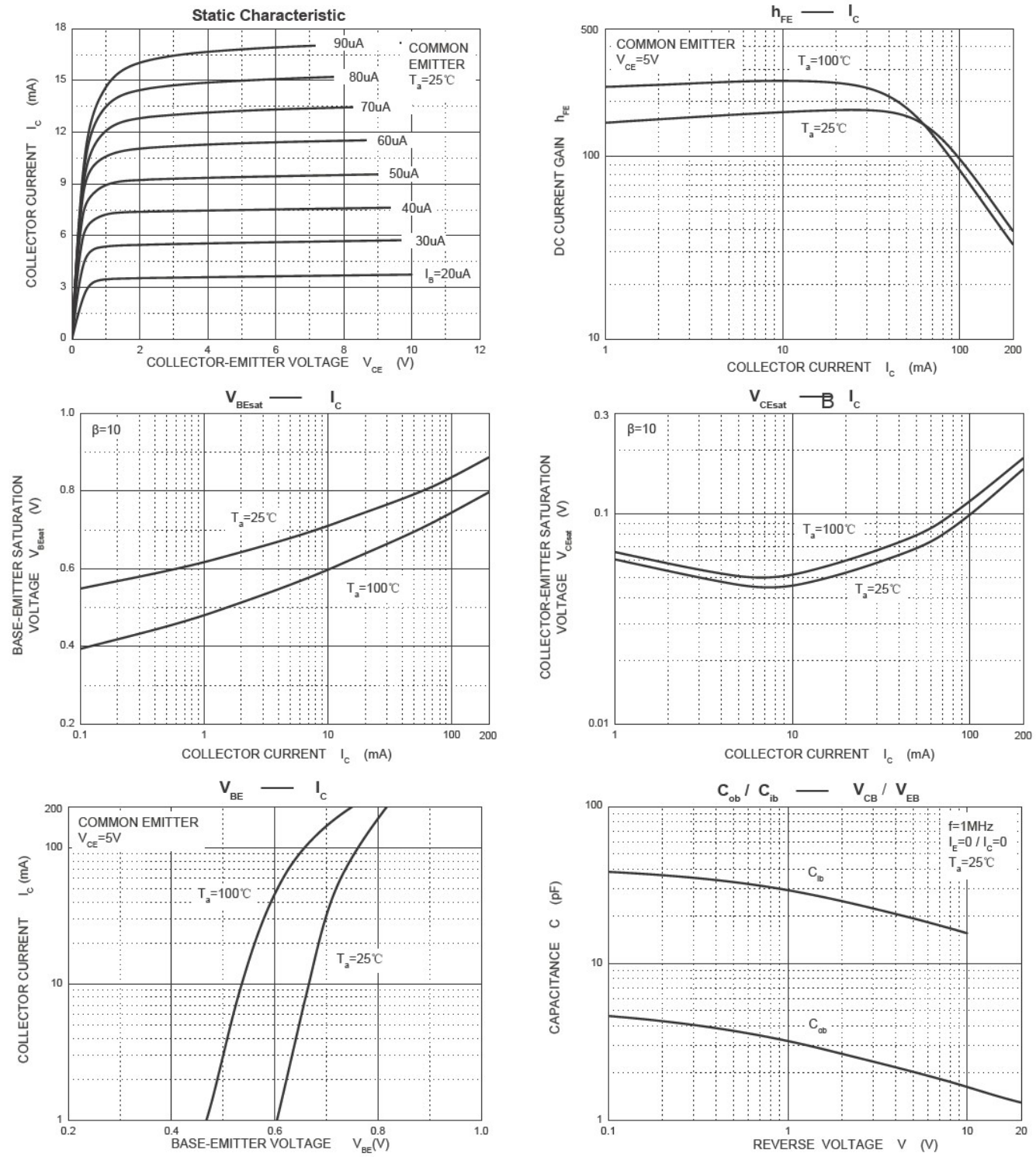
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	IC=100uA, IE=0	180		V
Collector-emitter breakdown voltage	V(BR)CEO *	IC=1mA, IB=0	160		V
Emitter-base breakdown voltage	V(BR)EBO	IE=10uA, IC=0	6		V
Collector cut-off current	ICBO	VCE=120V, IE=0		50	nA
Emitter cut-off current	IEBO	VEB=4V, IC=0		50	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		0.15	V
	VCE(sat)2 *	IC=50mA, IB=5mA		0.20	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	f _T	VCE=10V, IC=10mA, f=100MHz	100	300	MHz
Collector output capacitance	Cob	VCE=10V, IE=0, f=1MHz		6	pF

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

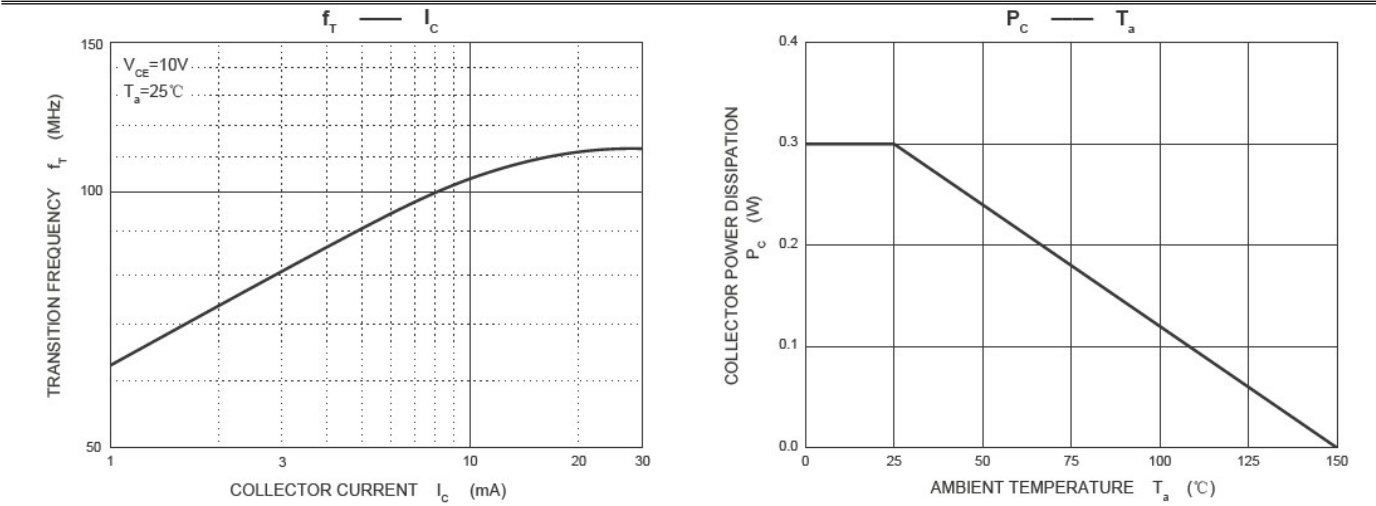
CLASSIFICATION OF hFE(2)

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

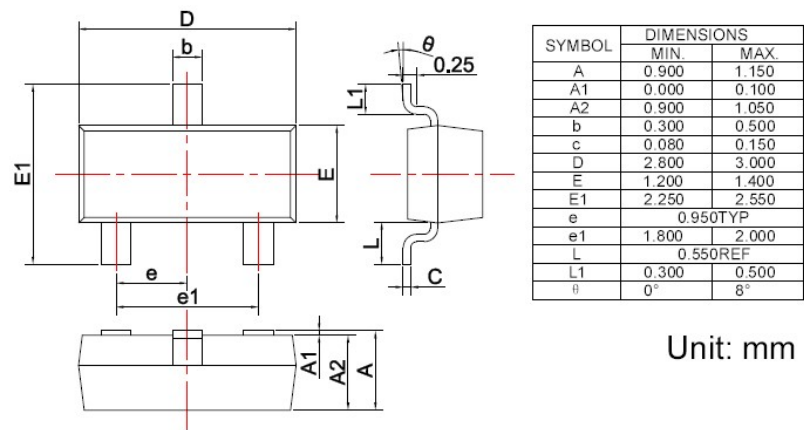
Typical characteristics



MMB5551

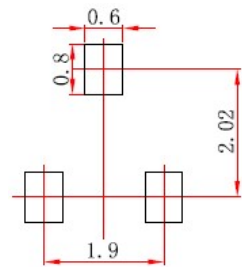


SOT-23 PACKAGE OUTLINE Plastic surface mounted package



焊盘设计参考Precautions: PCB Design

Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs



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