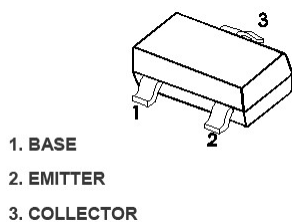


SOT-23

SOT-23 贴片塑封三极管
SOT-23 Plastic-Encapsulate Transistors



Marking: M2B

特征 Features

- 与 MMBT2222 配对; Complementary to MMBT2222
- 最大功率耗散 250mW; Power Dissipation of 250mW
- 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}	-60	V
Collector-Emitter Voltage	V _{CEO}	-40	V
Emitter -Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-600	mA
Collector Power Dissipation	P _C	250	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}	500	°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.)

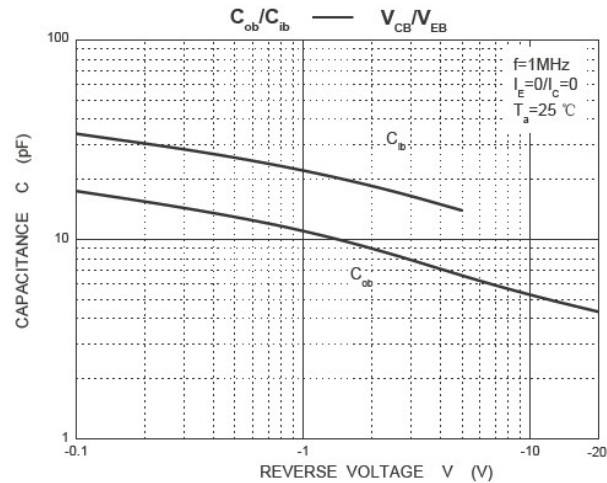
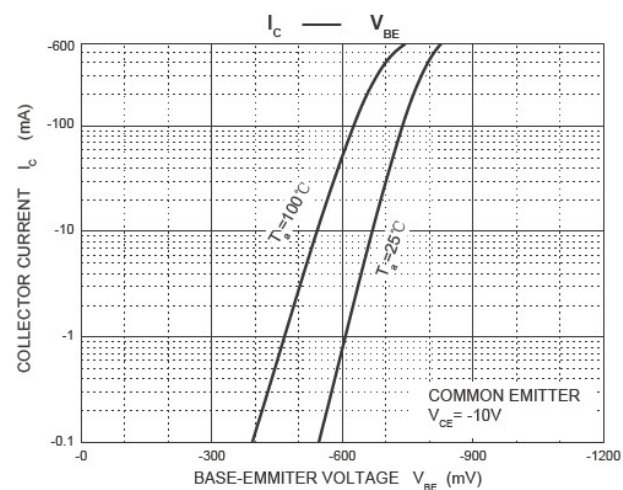
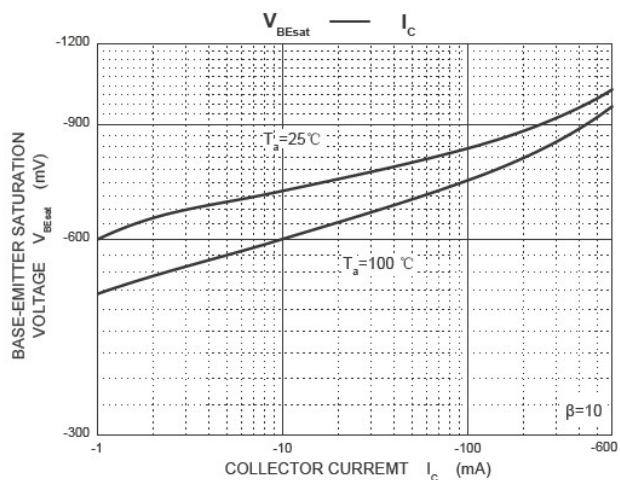
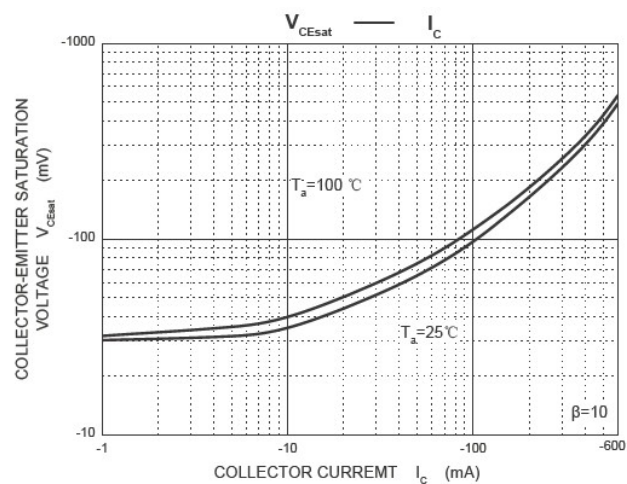
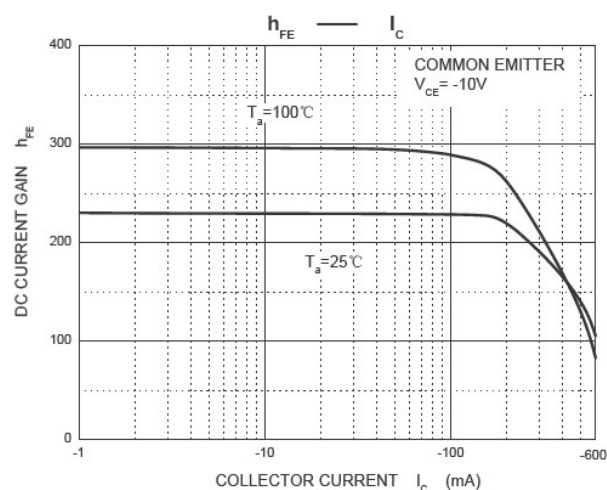
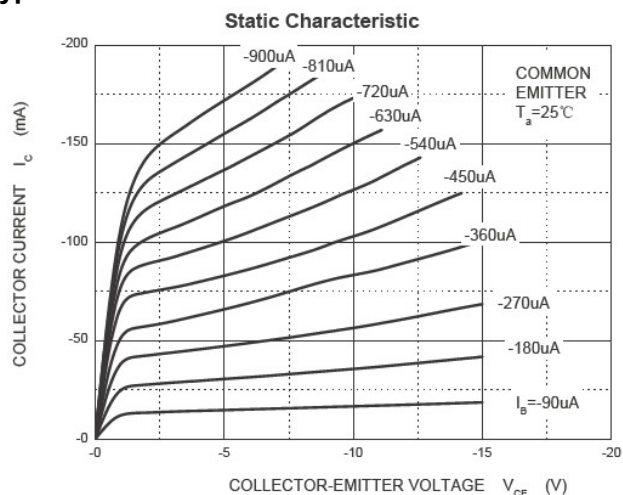
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	IC=-100uA, IE=0	-60		V
Collector-emitter breakdown voltage	V(BR)CEO *	IC=-1mA, IB=0	-40		V
Emitter-base breakdown voltage	V(BR)EBO	IE=-10uA, IC=0	-5		V
Collector cut-off current	ICBO	V _{CB} =-50V, IE=0		-20	nA
Emitter cut-off current	IEBO	V _{EB} =-3V, IC=0		-10	nA
Collector cut-off current	ICEX	V _{CE} =-30V, V _{BE(off)} =-0.5V		-50	nA
DC current gain	hFE(1) *	V _{CE} =-10V, IC=-150mA	100	300	
	hFE(2) *	V _{CE} =-10V, IC=-0.1mA	52		
	hFE(3) *	V _{CE} =-10V, IC=-500mA	32		
Collector-emitter saturation voltage	VCE(sat)1 *	IC=-150mA, IB=-15mA		-0.4	V
	VCE(sat)2 *	IC=-500mA, IB=-50mA		-0.67	V
Base -emitter saturation voltage	VBE(sat)1 *	IC=-150mA, IB=-15mA		-1.00	V
	VBE(sat)2 *	IC=-500mA, IB=-50mA		-1.20	V
Transition frequency	f _T	V _{CE} =-20V, IC=-50mA, f=100MHz	200		MHz
Delay time	t _d	V _{CE} =-30V, IC=-150mA, IB1=-15mA		10	nS
Rise time	t _r			25	nS
Storage time	t _s	V _{CE} =-6V, IC=-150mA, IB1=IB2=-15mA		225	nS
Fall time	t _f			60	nS

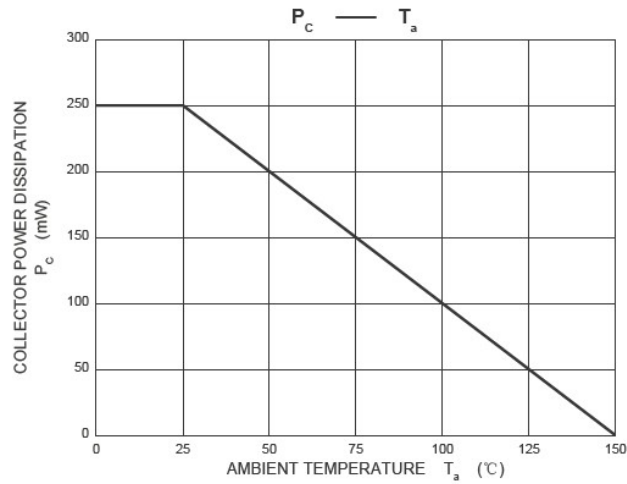
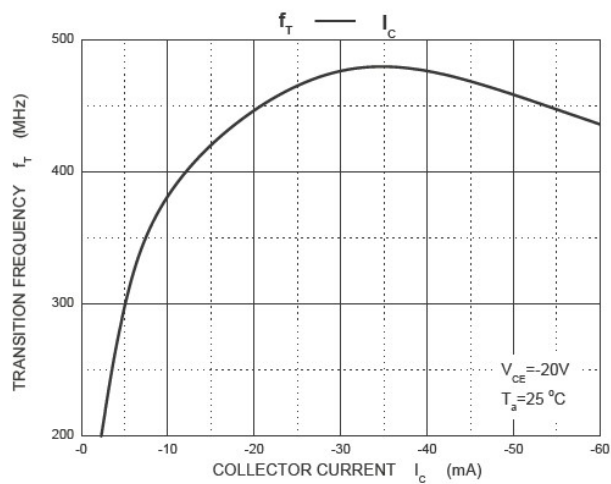
*Pulse test: pulse width≤300us, duty cycle≤2. 0%

CLASSIFICATION OF hFE(1)

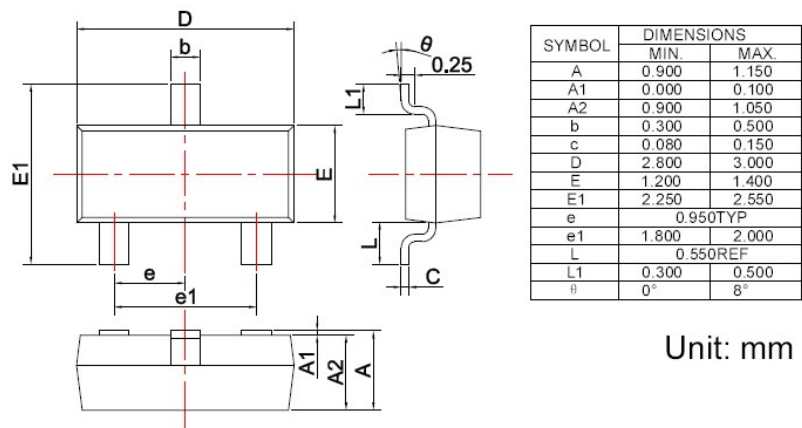
HFE	100-300	
RANK	L	H
RANGE	100-200	200-300

Typical characteristics

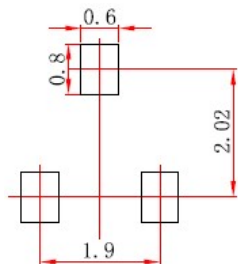




SOT-23 PACKAGE OUTLINE Plastic surface mounted package



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: ± 0.05 mm.
 - 3. The pad layout is for reference purposes only.