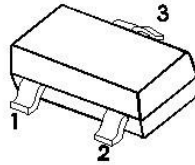


SOT-23



1. BASE

2. EMITTER

3. COLLECTOR

MARKING:2D

特征 Features

- 与MMBTA42配对;Complementary to MMBTA42
- 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	-300	V
Collector-Emitter Voltage	VCEO	-300	V
Emitter -Base Voltage	VEBO	-5	V
Collector Current-Continuous	IC	-200	mA
Collector Power Dissipation	PC	300	mW
Junction Temperature	Tj	150	℃
Storage Temperature	TSTG	-55-+150	℃
Thermal resistance from junction to ambient	RθJA	417	℃/W

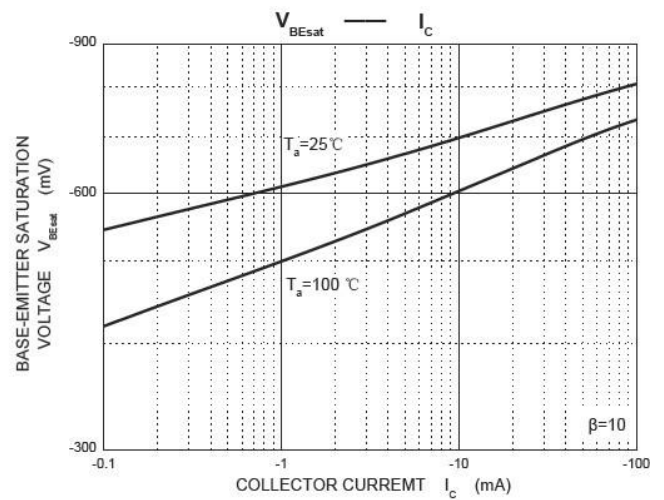
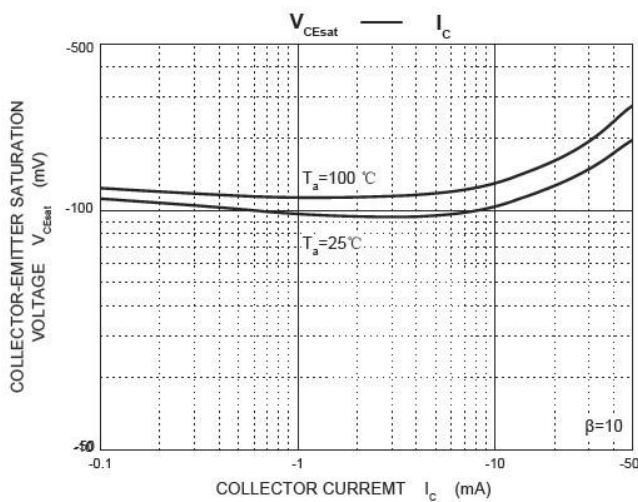
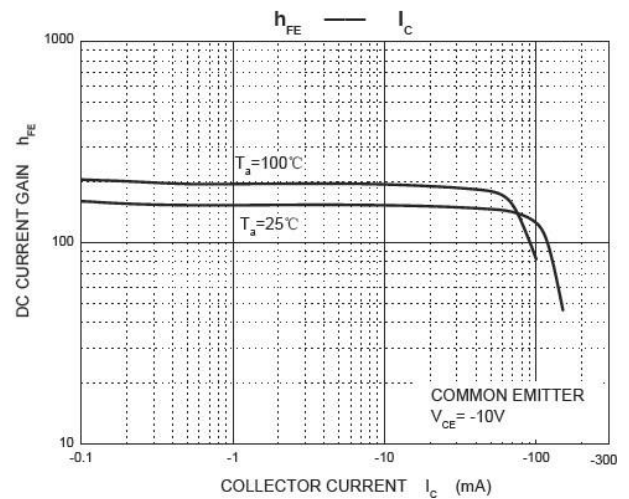
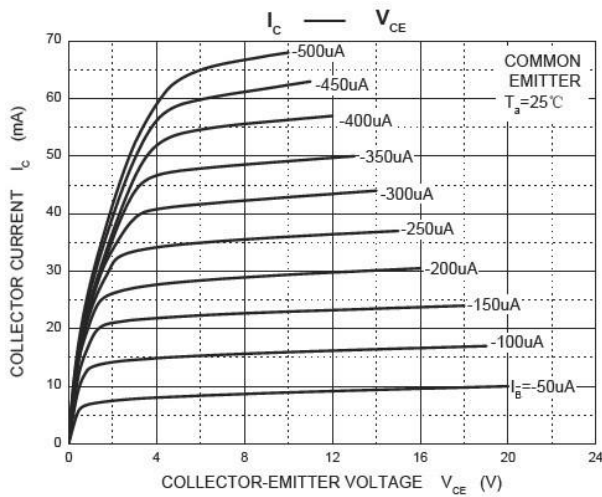
电特性 Electrical Characteristics (TA=25℃ unless otherwise specified)

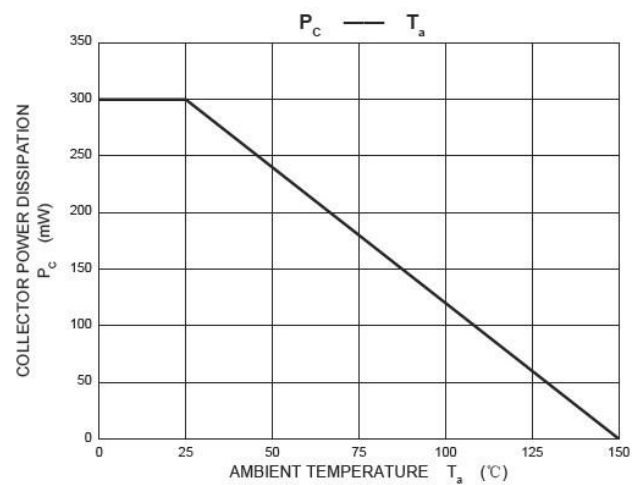
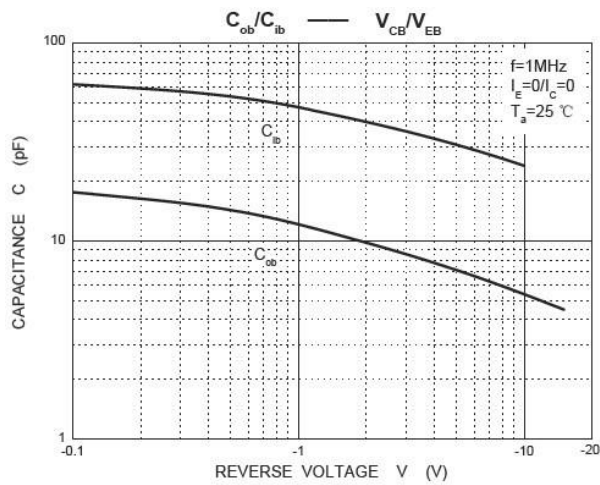
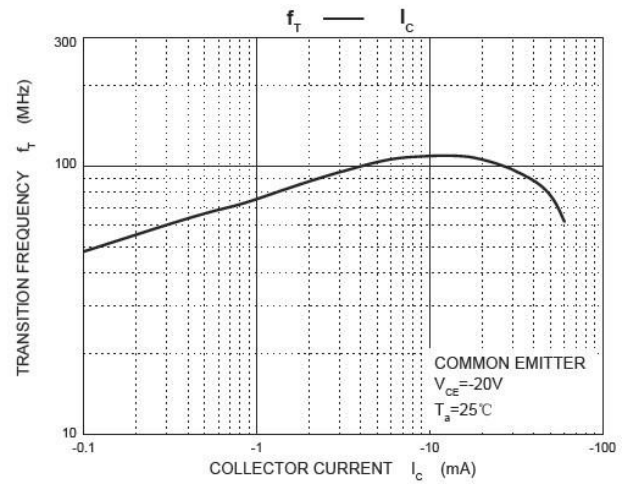
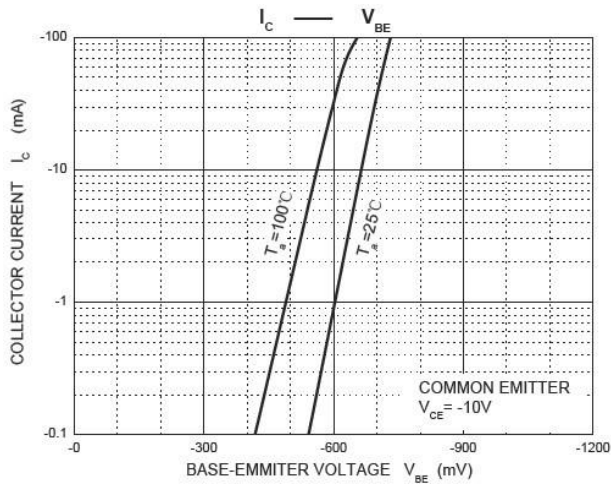
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	IC=-100uA, IE=0	-300		V
Collector-emitter breakdown voltage	V(BR)CEO*	IC=-1mA, IB=0	-300		V
Emitter-base breakdown voltage	V(BR)EBO	IE=-100uA, IC=0	-5		V
Collector cut-off current	ICBO	VCB=-200V, IE=0		-250	nA
Emitter cut-off current	IEBO	VEB=-5V, IC=0		-100	nA

DC current gain	$h_{FE}(1)^*$	$V_{CE}=-10V, I_C=-1mA$	60		
	$h_{FE}(2)^*$	$V_{CE}=-10V, I_C=-10mA$	100	200	
	$h_{FE}(3)^*$	$V_{CE}=-10V, I_C=-30mA$	60		
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=-20mA, I_B=-2mA$		-0.2	V
Base -emitter saturation voltage	$V_{BE(sat)}^*$	$I_C=-20mA, I_B=-2mA$		-0.9	V
Transition frequency	f_T	$V_{CE}=-20V, I_C=10mA, f=30MHz$	50		MHz

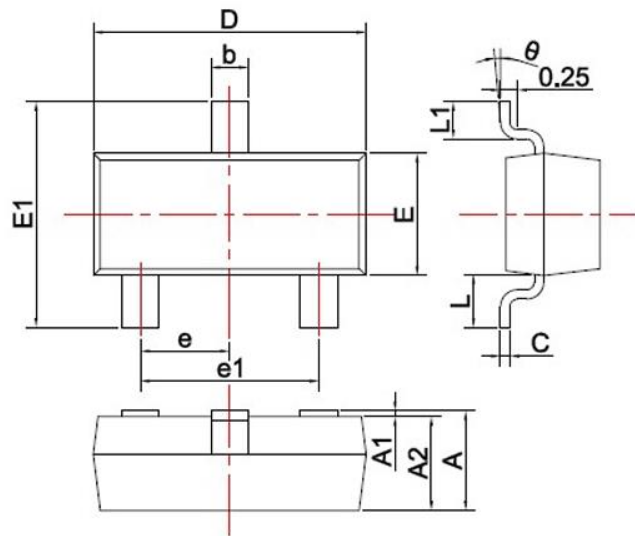
*Pulse test: pulse width $\leq 300\mu s$, duty cycle $\leq 2.0\%$

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





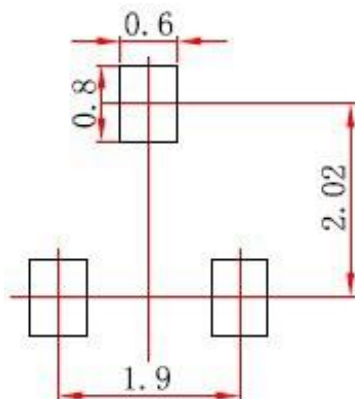
SOT-23 Package Outline Drawing



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:

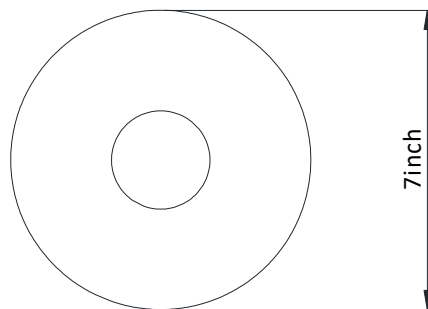
1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

Ordering Information

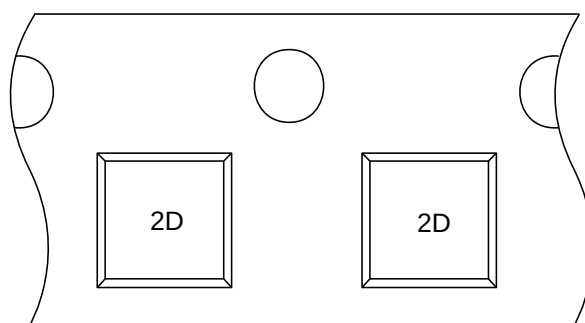
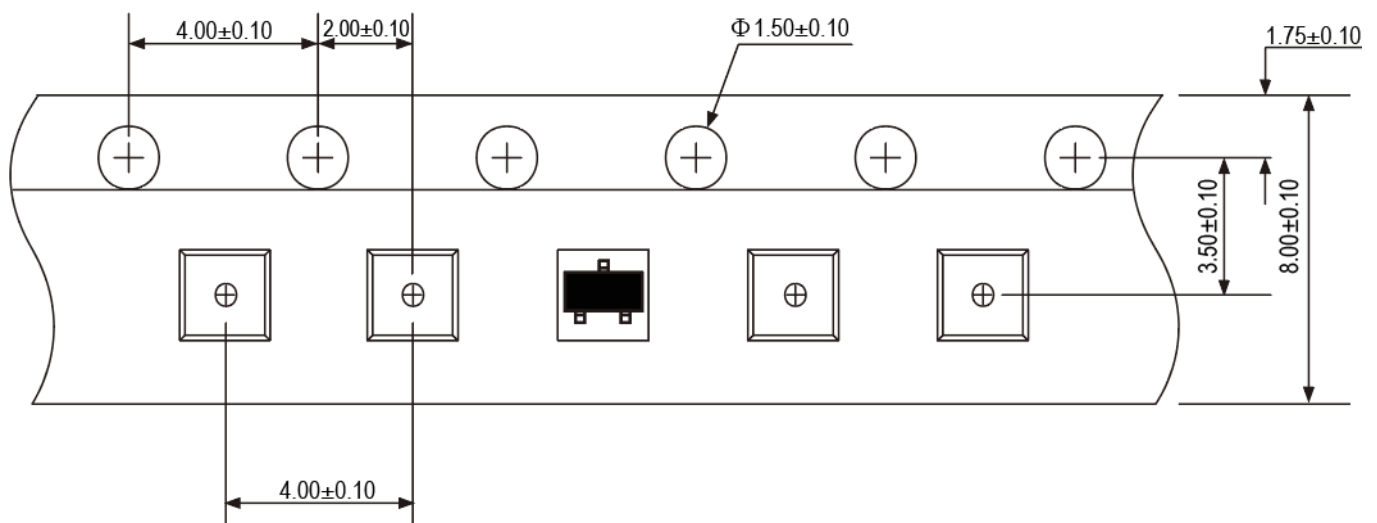
Part Number	Shipping	Reel Size
MMBTA92	3000/Tape & Reel	7 inch

Tape and Reel Information

Reel Dimensions



Tape Dimensions



User Direction of Feed

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