

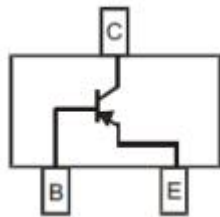
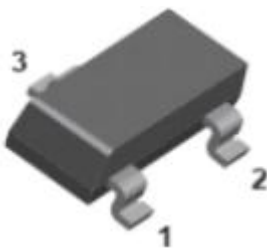
1. Features

- Complementary to MMBT5551
- Power Dissipation of 300mW
- High Stability and High Reliability
- Halogen-free、RoHS Compliant

2. Mechanical Data

- Package Type: SOT-23, Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

3. Symbol



Pin	Function
1	Base
2	Emitter
3	Collector

SOT-23

4. Absolute maximum ratings

($T_A=25^{\circ}\text{C}$, unless otherwise noted)

Parameter	Symbol	Rating	Units
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	$^{\circ}\text{C}$
storage temperature	T_{STG}	-55 to 150	$^{\circ}\text{C}$
Thermal resistance From junction to ambient	$R_{\theta JA}$	416	$^{\circ}\text{C}/\text{W}$



5. Electrical characteristics

(T_A=25°C, unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Max	Units
Collector-base breakdown voltage	BVCBO	IC=-100uA, IE=0	-180	-	V
Collector-emitter breakdown voltage	BVCEO	IC=-1mA, IB=0	-160	-	V
Emitter-base breakdown voltage	BVEBO	IE=-10uA, IC=0	-6	-	V
Collector-base cut-off current	ICBO	VCB=-120V, IE=0	-	-100	nA
Emitter-base cut-off current	IEBO	VEB=-4V, IC=0	-	-100	nA
DC current gain	hFE1	VCE=-5V, IC=-1mA	80	-	
	hFE2	VCE=-5V, IC=-10mA	100	300	
	hFE3	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	-	-1.0	V
	VBE(sat)2	IC=-50mA, IB=-5mA	-	-1.0	V
Transition frequency	f _T	VCE=-5V, IC=-10mA, f=100MHz	100	300	MHz

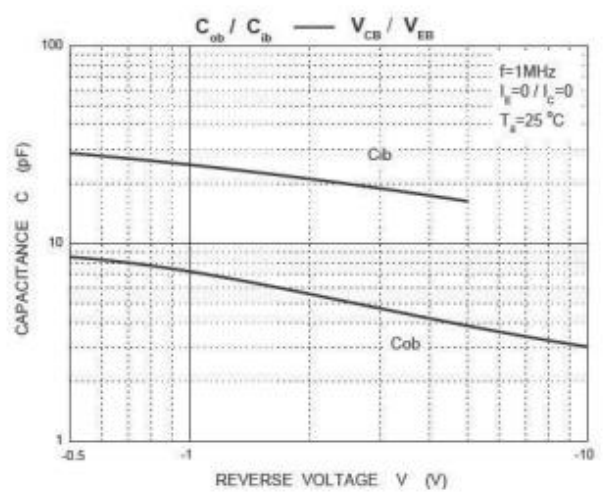
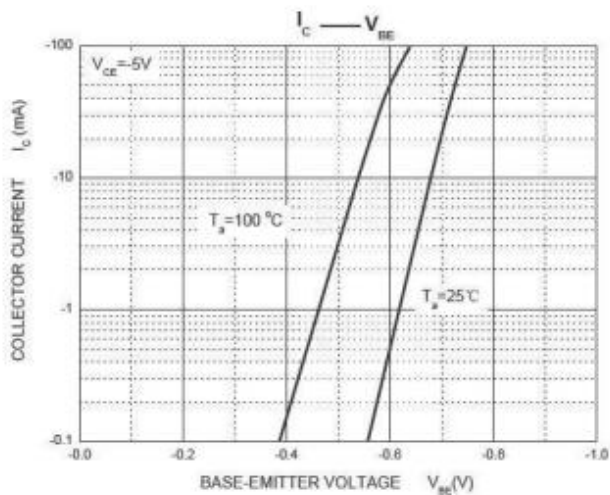
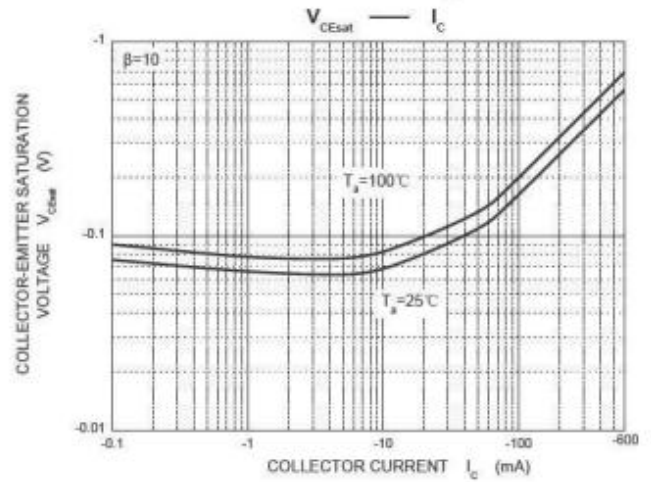
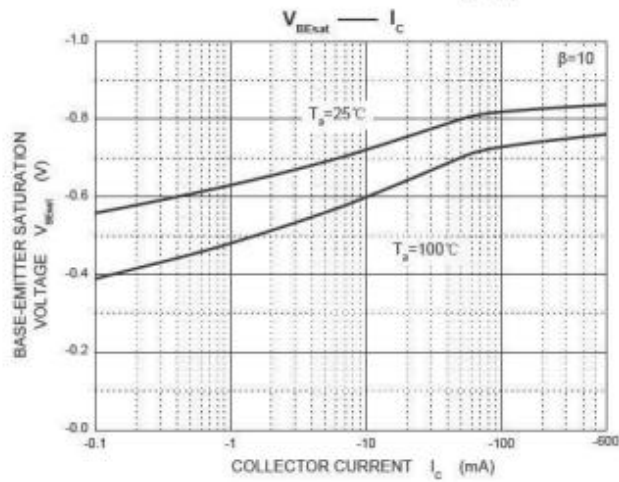
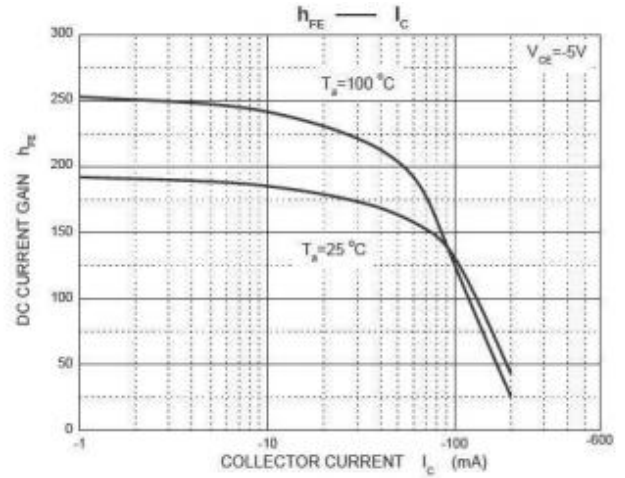
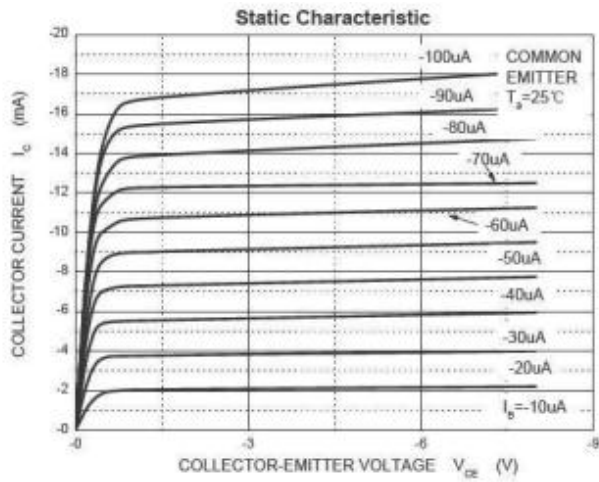
6. Classification of hFE2

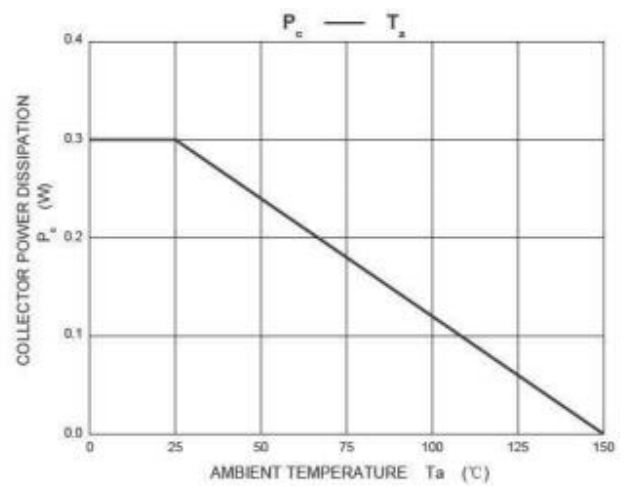
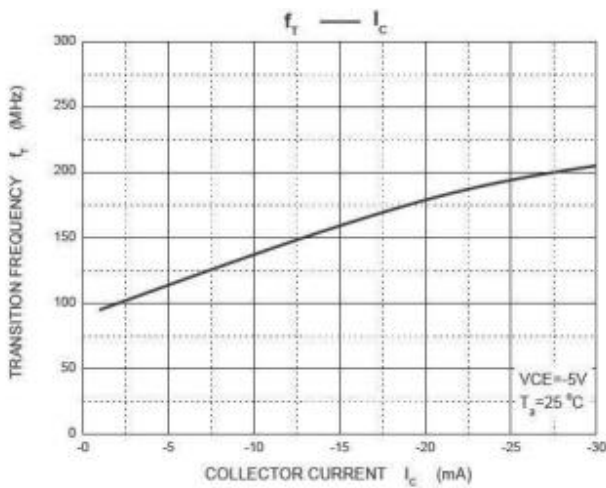
hFE2	100-300	
RANK	L	H
RANGE	100-200	200-300
MARKING	2L	

7. Ordering Information (Example)

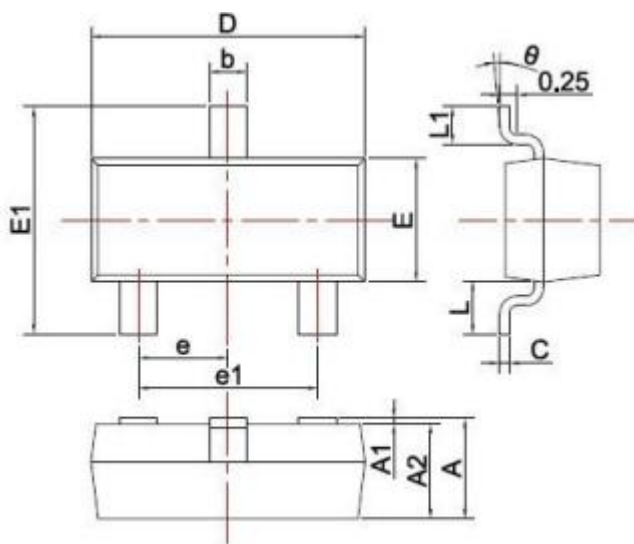
Reel Size	Minimum Package	Inner Box	Outer Carton	Unit Weight
7 Inch	3000pcs	45000pcs	180000pcs	0.008g

8. Typical characteristics





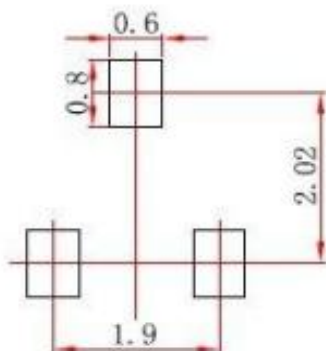
9. Packag Outline Dimensions



Unit: mm

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°

10. Precautions: PCB Design



Note:

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