



浩畅半导体
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M8050 TRANSISTOR (NPN)

SOT-23 Plastic-Encapsulate Transistors

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客户确认：

公司签章：

部门

工程部

品保部

采购部

签名

日期



SOT-23 Plastic-Encapsulate Transistors

M8050 TRANSISTOR (NPN)

FEATURES

Power dissipation

MARKING: Y11



MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	40	V
V _{CEO}	Collector-Emitter Voltage	25	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	0.8	A
P _C	Collector Power Dissipation	0.2	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

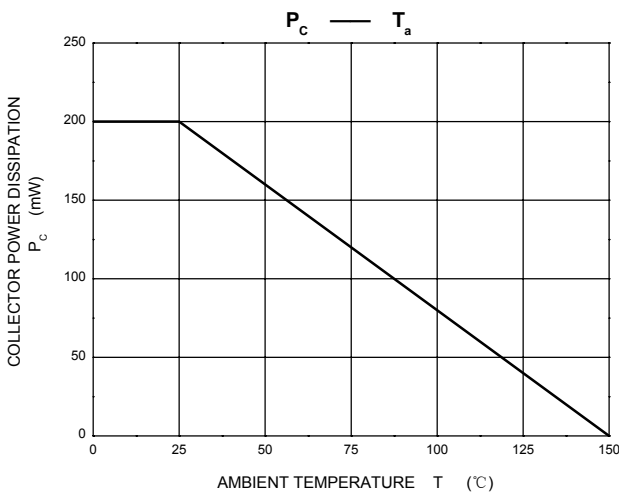
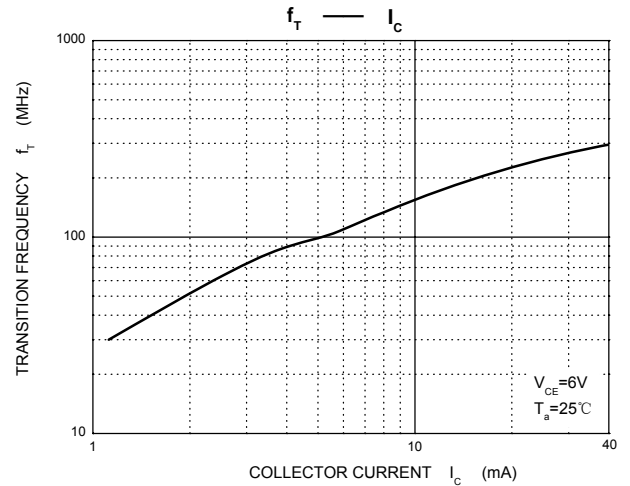
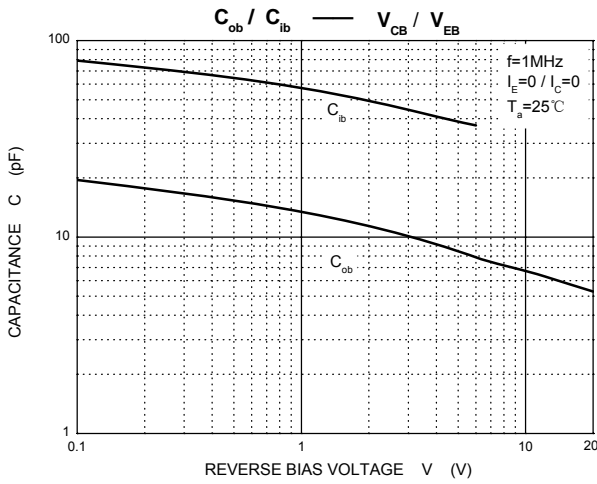
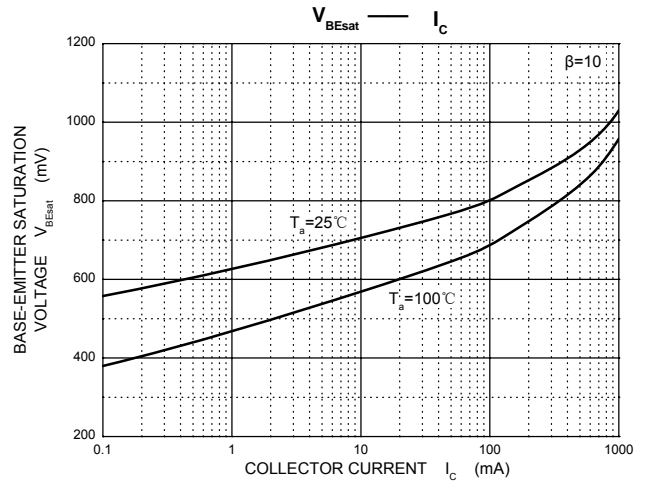
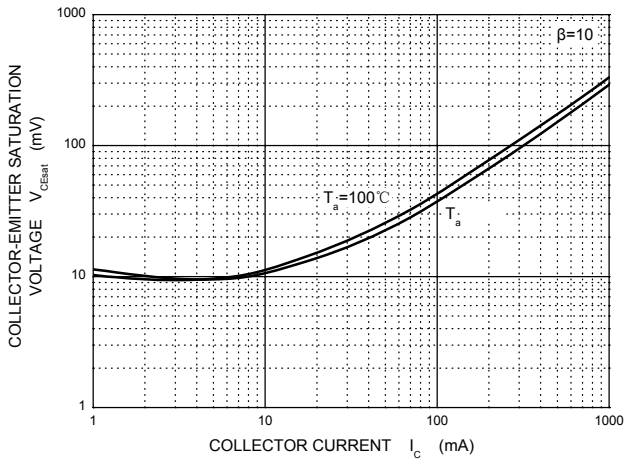
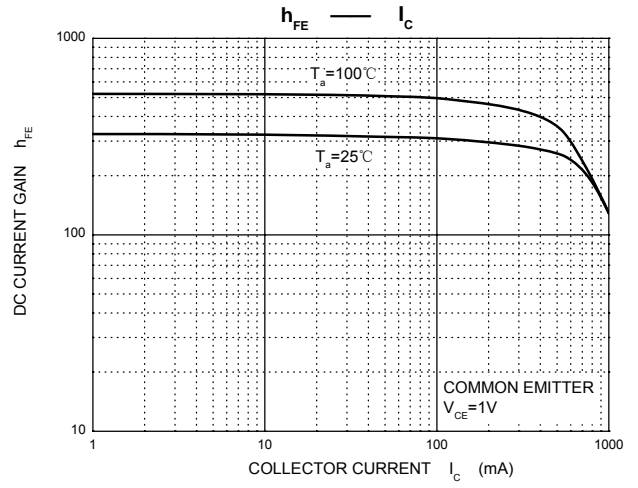
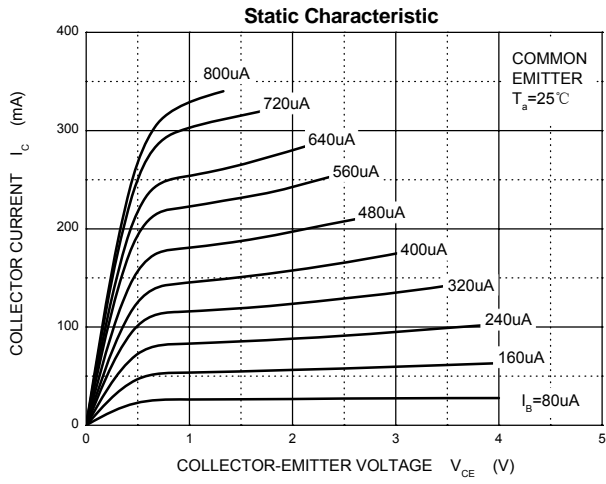
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V(BR) _{CBO}	I _C = 100μA, I _E =0	40		V
Collector-emitter breakdown voltage	V(BR) _{CEO} *	I _C =1mA, I _B =0	25		V
Emitter-base breakdown voltage	V(BR) _{EBO}	I _E = 100μA, I _C =0	6		V
Collector cut-off current	I _{CBO}	V _{CB} = 35V, I _E =0		0.1	μA
Collector cut-off current	I _{CEO}	V _{CE} = 20V, I _B =0		0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =1V, I _C =5mA	45		
	h _{FE(2)}	V _{CE} =1V, I _C =100mA	80	300	
	h _{FE(3)}	V _{CE} =1V, I _C =800mA	40		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 800mA, I _B =80mA		0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =800mA, I _B = 80mA		1.2	V
Transition frequency	f _T	V _{CE} =6V, I _C = 20mA, f=30MHz	150		MHz

* Pulse Test : pulse width ≤ 300μs , duty cycle ≤2%.

CLASSIFICATION OF h_{FE(2)}

Rank	L	H
Range	80-200	200-300

Typical Characteristics



SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout



Note:

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