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S8050 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

S8050 TRANSISTOR (NPN)

SOT-23

- 1. BASE
- 2. EMITTER
- 3. COLLECTOR



FEATURES

- Complimentary to S8550
- Collector Current: $I_C = -0.5A$

MARKING: J3Y

MAXIMUM RATINGS ($T_A=25^\circ C$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	0.5	A
P_C	Collector Dissipation	0.2	W
T_j	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55-150	$^\circ C$

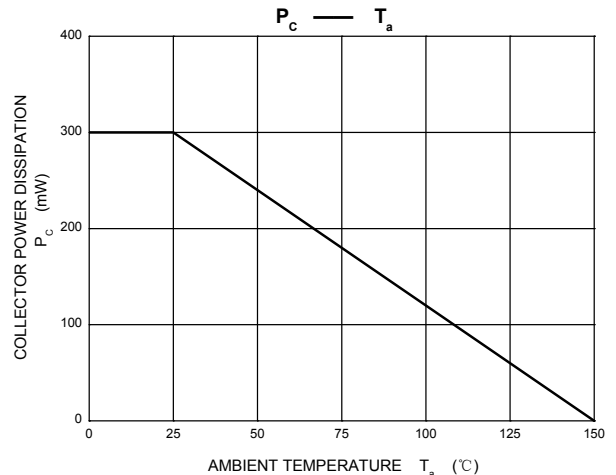
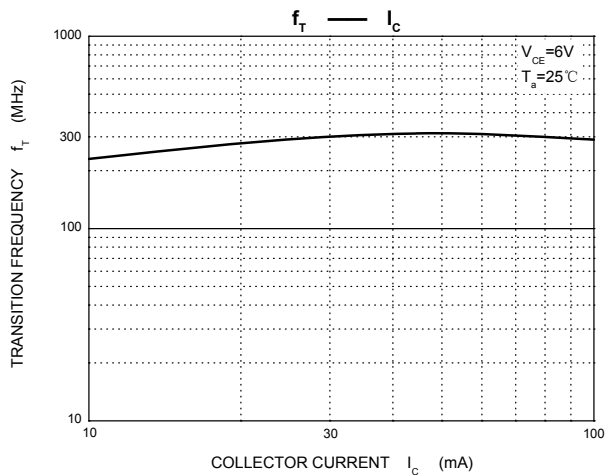
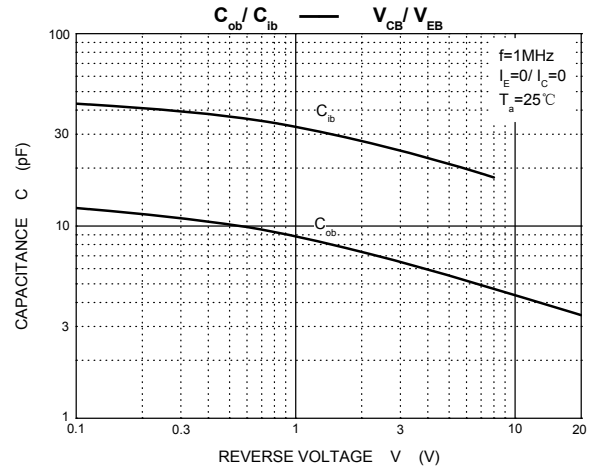
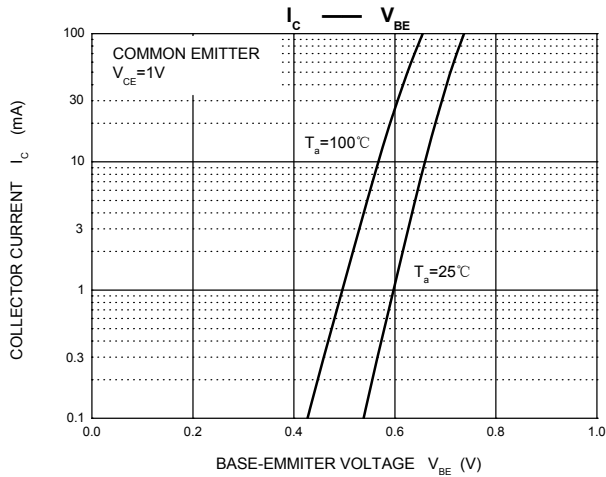
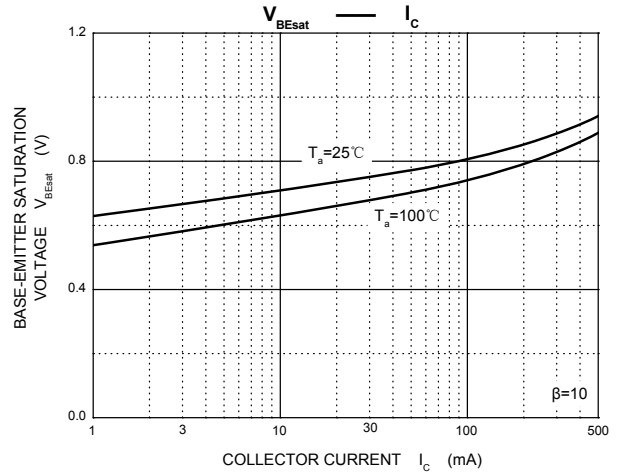
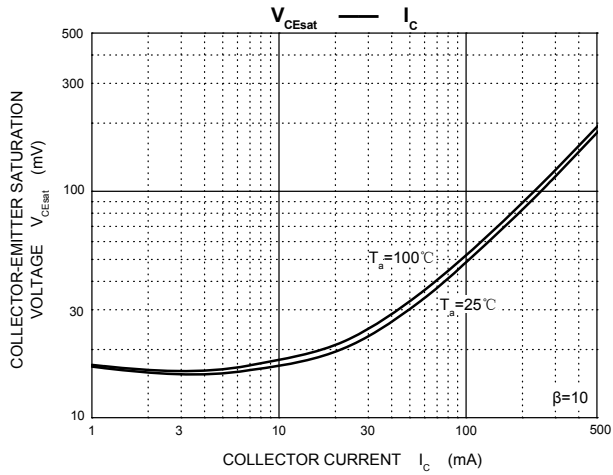
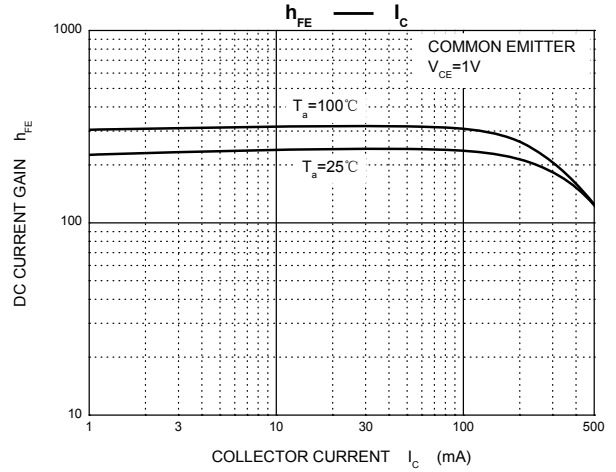
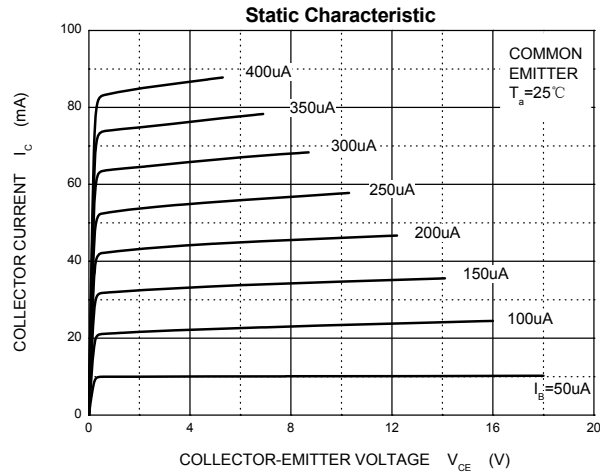
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100 \mu A, I_E = 0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA, I_B = 0.25$				V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu A, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 40V, I_E = 0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CB} = 20V, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			0.1	μA
DC current gain	$H_{FE(1)}$	$V_{CE} = 1V, I_C = 50mA$	120		350	
	$H_{FE(2)}$	$V_{CE} = 1V, I_C = 500mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500mA, I_B = 50mA$			1.2	V
Transition frequency	f_T	$V_{CE} = 6V, I_C = 20mA, f = 30MHz$	150			MHz

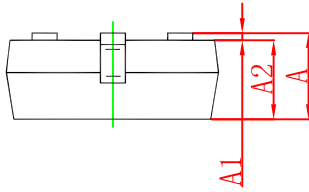
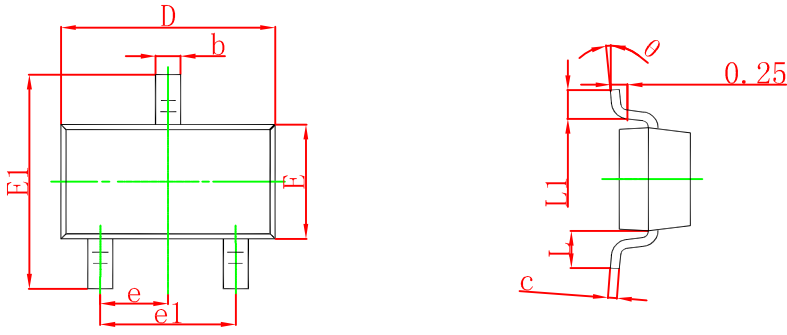
CLASSIFICATION OF $h_{FE(1)}$

Rank	Symbol	Value
Range	LH	120-200 200-350

Typical Characteristics

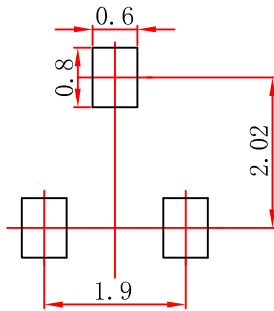


SOT-23 Package Outline Dimensions



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.