

SS8550 PNP Transistors

General description

SOT-23 Plastic-Encapsulate Transistors

SOT-23

FEATURES

- Complementary to S8050
- Power Dissipation of 300mW
- High Stability and High Reliability

MECHANICAL DATA

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

1. BASE
2. EMITTER
3. COLLECTOR



Marking: Y2

Maximum Ratings & Thermal Characteristics T_A = 25°C unless otherwise noted

Parameters	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	-40	V
Collector-Emitter Voltage	V _{CEO}	-25	V
Emitter -Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _c	-1500	mA
Collector Power Dissipation	P _c	300	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}	417	°C/W

Electrical Characteristics T_A = 25°C unless otherwise noted

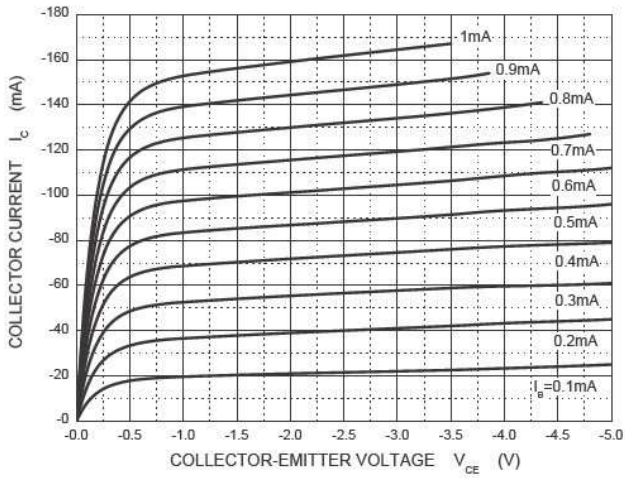
Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	I _C =-100uA, I _E =0	-40		V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =-0.1mA, I _B =0	-25		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =-100uA, I _C =0	-5		V
Collector cut-off current	I _{CEO}	V _{CE} =-20V, I _B =0		-100	nA
Collector cut-off current	I _{CB0}	V _{CB} =-40V, I _E =0		-100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-3V, I _C =0		-100	nA
DC current gain	h _{FE} (1)	V _{CE} =-1V, I _C =-100mA	120	400	
	h _{FE} (2)	V _{CE} =-1V, I _C =-800mA	50		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-800mA, I _B =-80mA		-0.60	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =-800mA, I _B =-80mA		-1.20	V
Transition frequency	f _t	V _{CE} =-1V, I _C =-10mA	100		MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		20	pF

CLASSIFICATION OF h_{FE}(1)

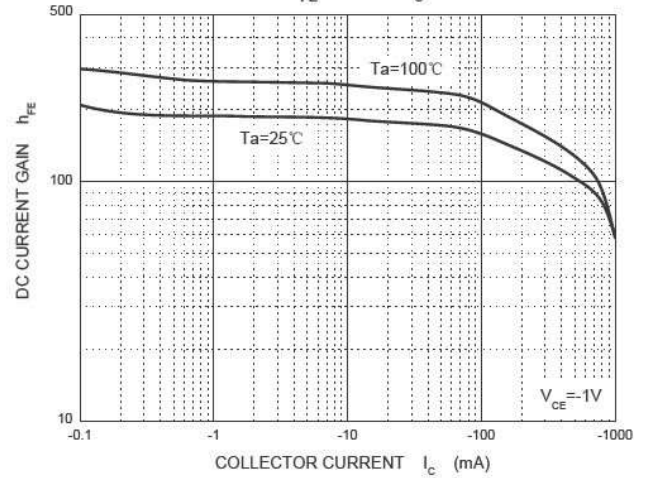
RANK	L	H	J
RANGE	120-200	200-350	300-400

Typical characteristics

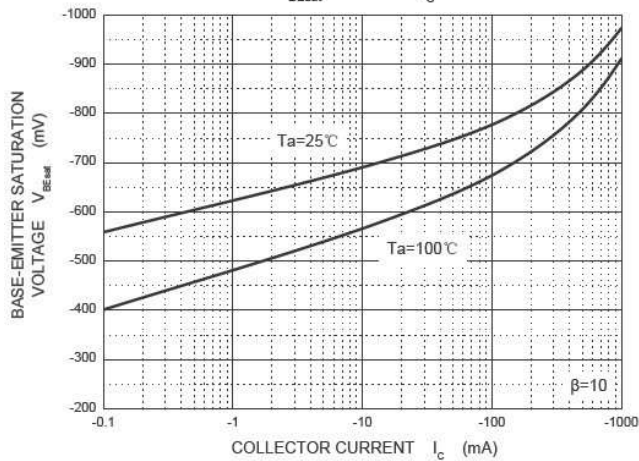
Static Characteristic



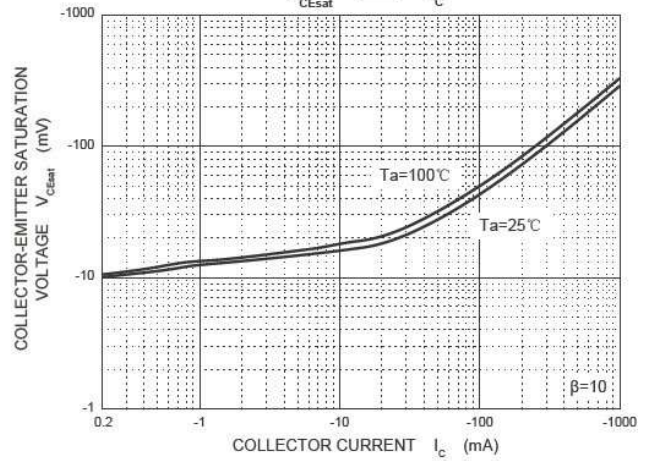
$h_{FE} - I_c$



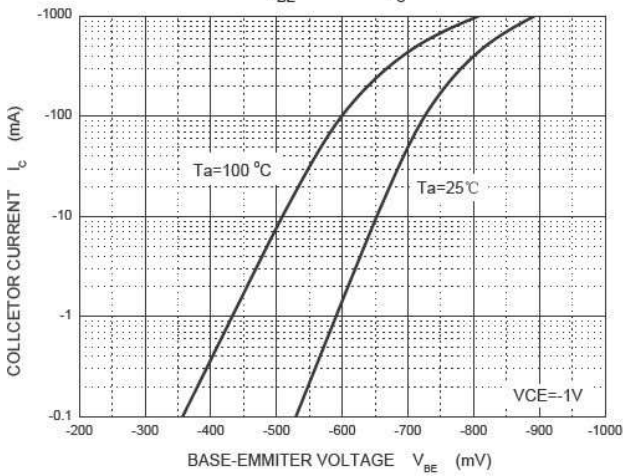
$V_{BEsat} - I_c$



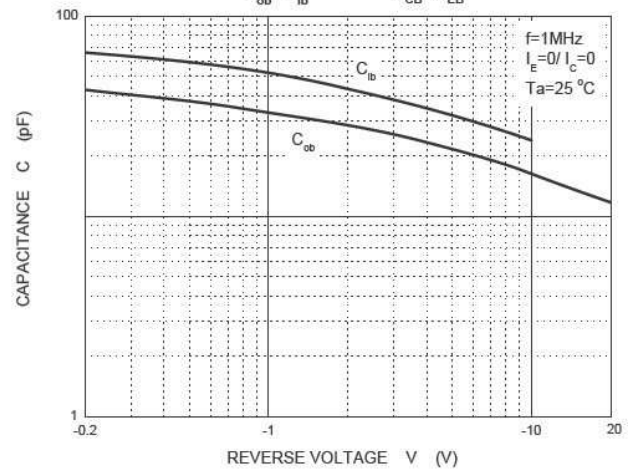
$V_{CEsat} - I_c$

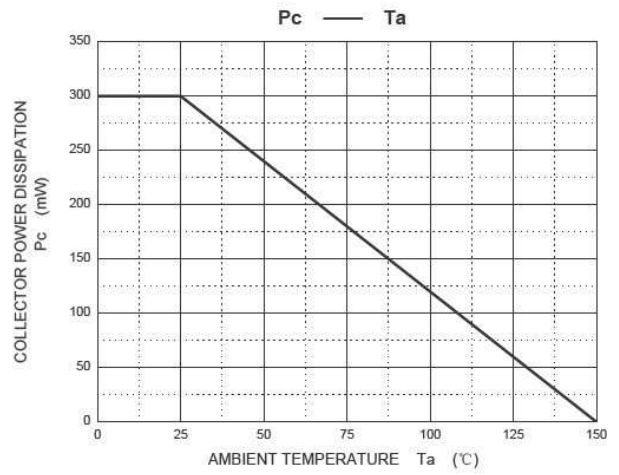
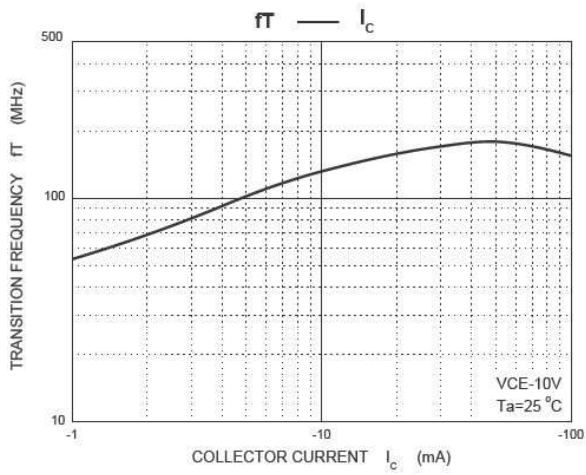


$V_{BE} - I_c$

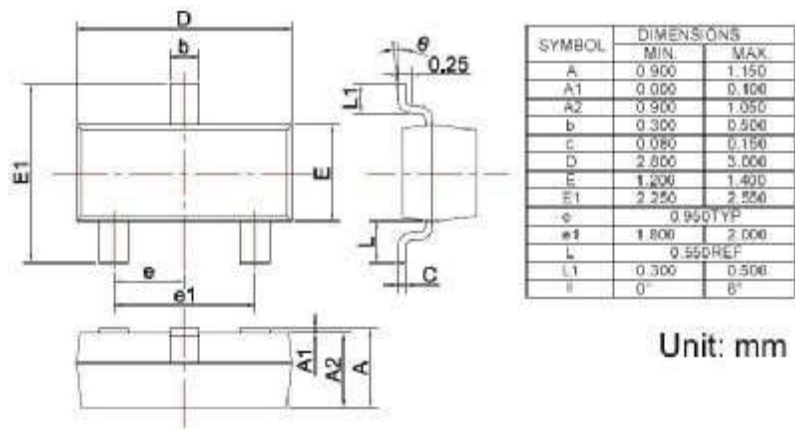


$C_{ob}/C_{ib} - V_{CB}/V_{EB}$

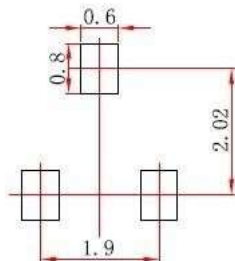




SOT-23 PACKAGE OUTLINE Plastic surface mounted package



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.

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