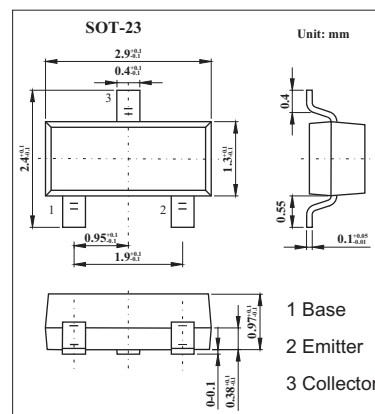
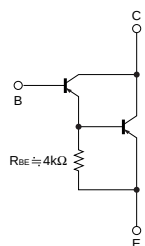


High-gain Amplifier Transistor

2SB852

■ Features

- Darlington connection for high DC current gain.
- Built-in 4k Ω resistor between base and emitter.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V _{CBO}	-40	V
Collector-Emitter Voltage	V _{CEO}	-32	V
Emitter-Base Voltage	V _{EBO}	-6	V
Collector Current -Continuous	I _C	-300	mA
Collector Power Dissipation(TOTAL)	P _C	200	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to 150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-to-base breakdown voltage	V _{(BR)CBO}	I _C = -100 μ A, I _E = 0	-40			V
Collector-to-emitter breakdown voltage	V _{(BR)CEO}	I _C = -1 mA, I _B = 0	-32			V
Emitter-to-base breakdown voltage	V _{(BR)EBO}	I _E = -100 μ A, I _C = 0	-6			V
Collector cutoff current	I _{CBO}	V _{CB} = -24 V, I _E = 0			-1	μ A
Collector cutoff current	I _{EBO}	V _{CE} = -4.5V, I _C = 0			-1	μ A
DC current gain	h _{FE}	V _{CE} = -5V, I _C = -100mA	5000			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -200 mA, I _B = -0.4mA			-1.5	V
Transition frequency	f _T	V _{CE} = -5V, I _C = -10mA, f = 100MHz		200		MHz
Output capacitance	C _{ob}	V _{CB} = -10V, I _E = 0A, f = 1MHz		3		PF

■ Marking

Marking	U*
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2SB852

■ TypIacl Characteristics

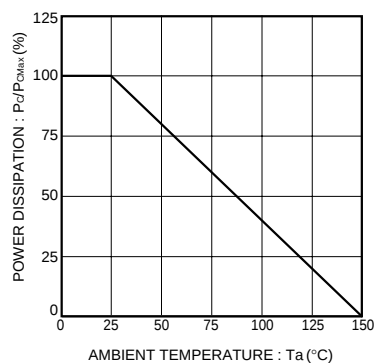


Fig.1 Power dissipation curves

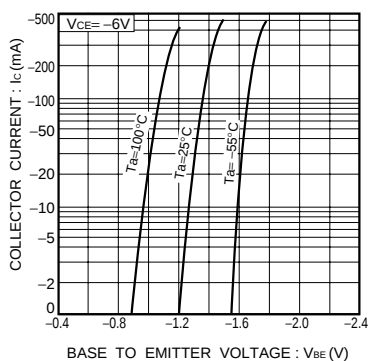


Fig.2 Ground emitter propagation characteristics

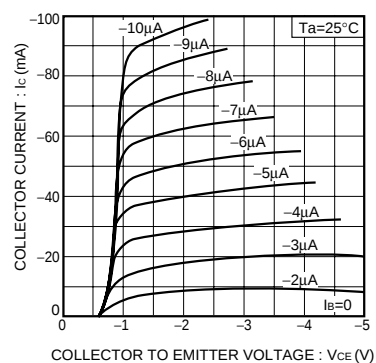


Fig.3 Ground emitter output characteristics

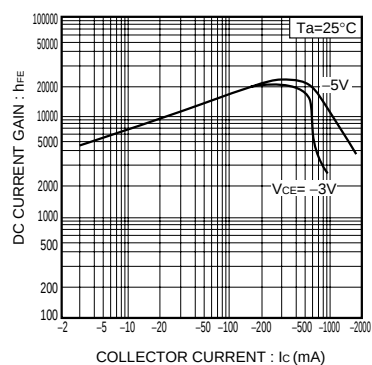


Fig.4 DC current gain vs. collector current (I)

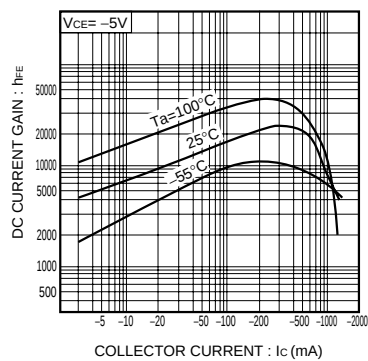


Fig.5 DC current gain vs. collector current (II)

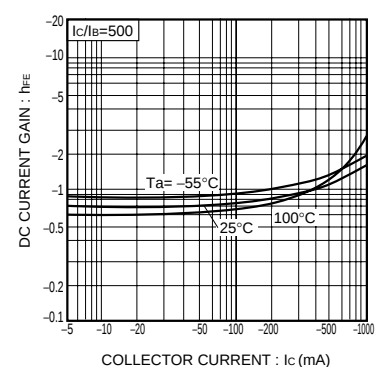


Fig.6 Collector-emitter saturation voltage vs. collector current

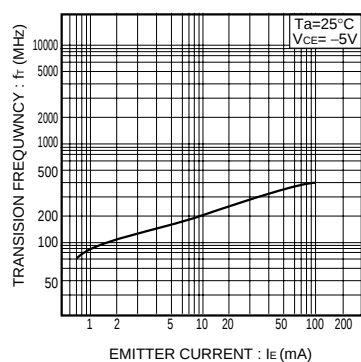


Fig.7 Gain bandwidth product vs. emitter current

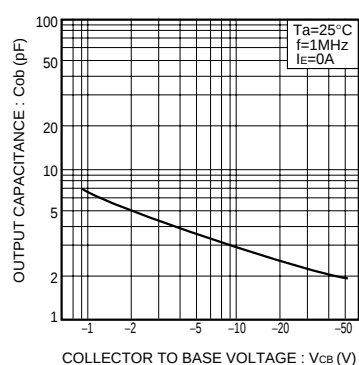


Fig.8 Collector output capacitance vs. collector-base voltage

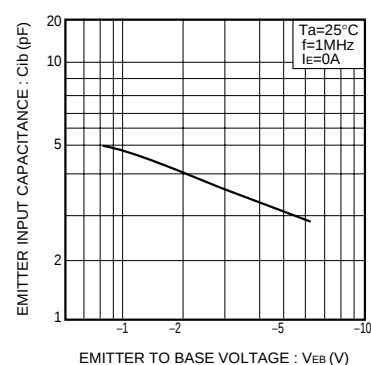


Fig.9 Emitter input capacitance vs. emitter-base voltage