

2SC1953

Silicon NPN epitaxial planar type

For audio system/pre-drive
Complementary to 2SA0914

■ Features

- High collector-emitter voltage (Base open) V_{CEO}
- Small collector output capacitance (Common base, input open circuited) C_{ob}
- A complementary pair with 2SA0914, is optimum for the pre-driver stage of a 60 W to 100 W output amplifier
- TO-126B package which requires no insulation plate for installation to the heat sink

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

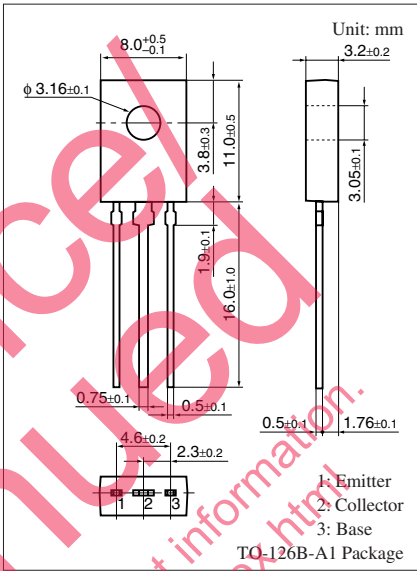
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	150	V
Collector-emitter voltage (Base open)	V_{CEO}	150	V
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	50	mA
Peak collector current	I_{CP}	100	mA
Collector power dissipation	P_C	1	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

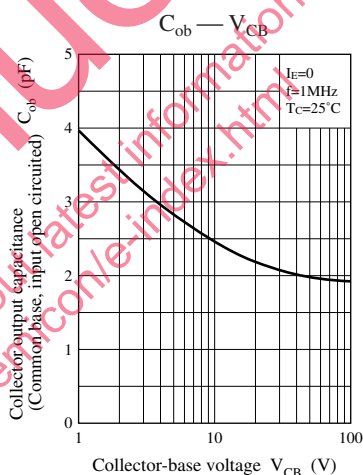
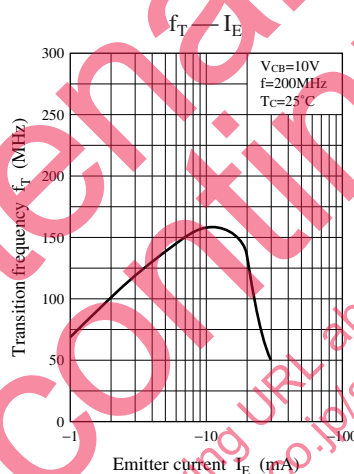
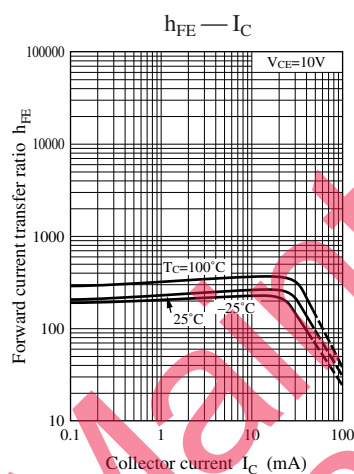
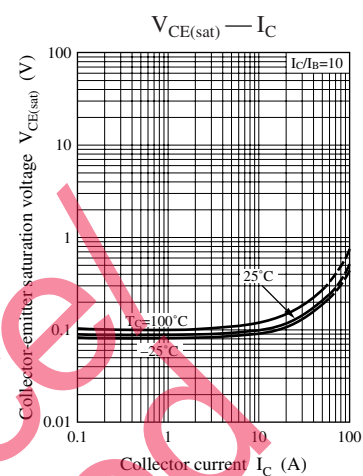
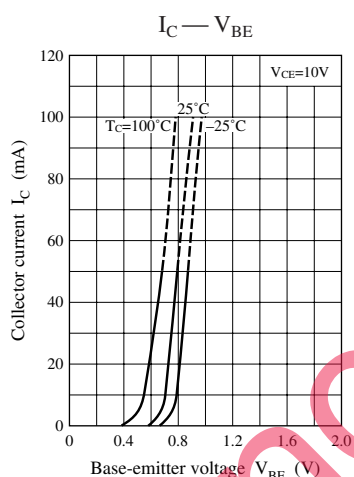
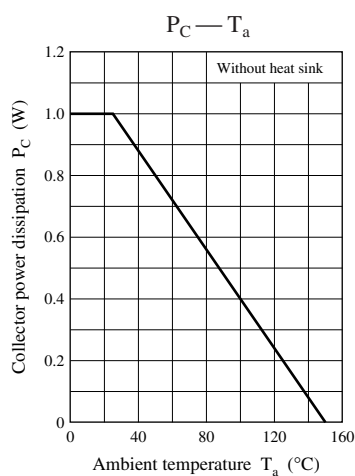
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 100\ \mu\text{A}$, $I_B = 0$	150			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 10\ \mu\text{A}$, $I_C = 0$	5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 100\ \text{V}$, $I_E = 0$			1	μA
Forward current transfer ratio *	h_{FE}	$V_{CE} = 5\ \text{V}$, $I_C = 10\ \text{mA}$	130		330	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 30\ \text{mA}$, $I_B = 3\ \text{mA}$			1	V
Transition frequency	f_T	$V_{CB} = 10\ \text{V}$, $I_E = -10\ \text{mA}$, $f = 200\ \text{MHz}$	70			MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = 10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$			3	pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

Rank	Q	R
h_{FE}	130 to 220	185 to 330





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