2SC1953

Silicon NPN epitaxial planar type

For audio system/pre-drive Complementary to 2SA0914

■ Features

- ullet 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 $T_a = 25^{\circ}C$

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	°C	
Storage temperature	T _{stg}	-55 to +150	°C	

Unit: mm 3.2±0.2 0.75±0.1 0.5±0.1 0.5±0.1 0.5±0.1 1.76±0.1 1.76±0.1 1.76±0.1 1.76±0.1 1.76±0.1 1.76±0.1 1.76±0.1 1.76±0.1 1.76±0.1 1.76±0.1 1.76±0.1

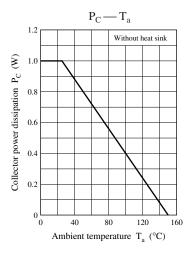
Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

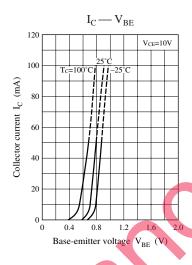
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = 100 \mu$ A, $I_B = 0$	150			V
Emitter-base voltage (Collector open)	V _{EBO}	$I_{\rm E} = 10 \mu A, I_{\rm C} = 0$	5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 100 \text{ V}, I_E = 0$			1	μΑ
Forward current transfer ratio *	Ch _{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	C _{ob}	$V_{CB} = 10 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$			3	pF
(Common base, input open circuited)						

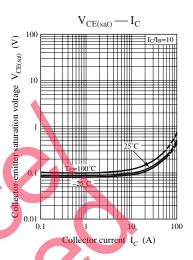
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

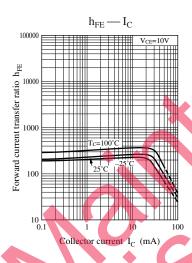
2. *: Rank classification

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

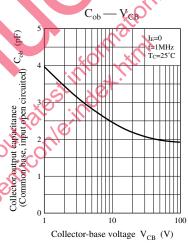












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