

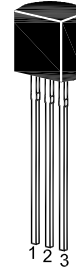
2SC2310

NPN Silicon Epitaxial Planar Transistor

low frequency, low noise amplifier.

The transistor is subdivided into two groups B and C according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

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

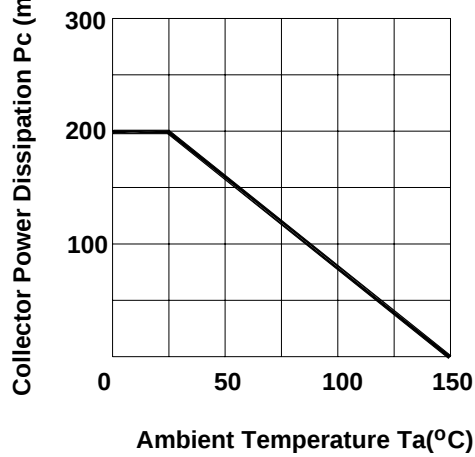
Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	55	V
Collector Emitter Voltage	V_{CEO}	50	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	100	mA
Emitter Current	$-I_E$	100	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

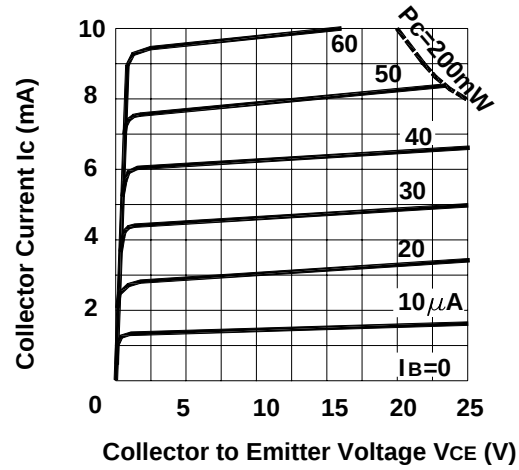
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 12\text{ V}$, $I_C = 2\text{ mA}$ Group	Current Gain B	h_{FE}	100	-	-
	Current Gain C	h_{FE}	160	-	-
Collector Base Cutoff Current at $V_{CB} = 18\text{ V}$	I_{CBO}	-	-	0.5	μA
Emitter Base Cutoff Current at $V_{EB} = 2\text{ V}$	I_{EBO}	-	-	0.5	μA
Collector Base Breakdown Voltage at $I_C = 10\text{ }\mu\text{A}$	V_{CBO}	55	-	-	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	V_{CEO}	50	-	-	V
Emitter Base Breakdown Voltage at $I_C = 10\text{ }\mu\text{A}$	V_{EBO}	5	-	-	V
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$, $I_B = 1\text{ mA}$	$V_{CE(sat)}$	-	-	0.2	V
Base Emitter Voltage at $I_C = 2\text{ mA}$, $V_{CE} = 12\text{ V}$	V_{BE}	-	0.67	0.75	V
Transition Frequency at $V_{CE} = 12\text{ V}$, $I_C = 2\text{ mA}$	f_T	-	230	-	MHz
Collector Output Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	1.8	3.5	pF
Noise Figure at $V_{CE} = 6\text{ V}$, $I_C = 0.1\text{ mA}$, $f = 120\text{ Hz}$, $R_g = 500\text{ }\Omega$	NF	-	3	5	dB

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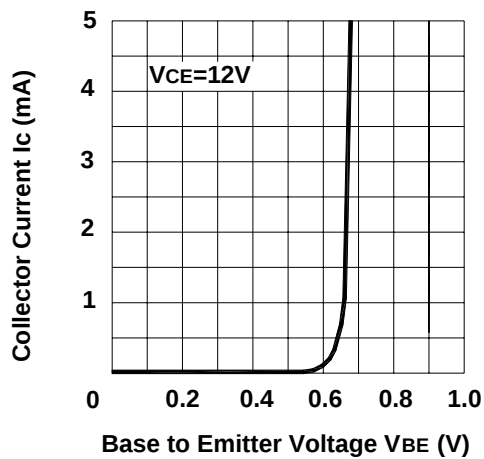
Maximum Collector Dissipation Curve



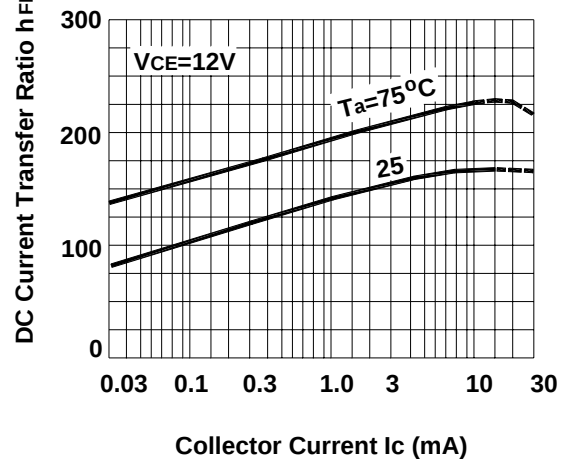
Typical Output Characteristics



Typical Transfer Characteristics



DC Current Transfer Ratio vs. Collector Current





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