

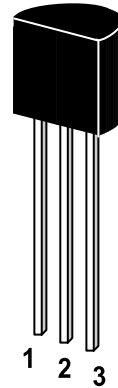
ST 2SC2310

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.

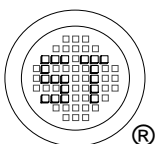


1. Emitter 2. Collector 3. Base

TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings (Ta=25 °C)

	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	°C
Storage Temperature Range	T_S	-55 to +150	°C



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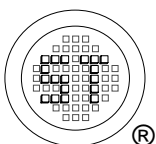
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Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=12\text{V}$, $I_C=2\text{mA}$ Current Gain Group	B	100	-	200	-
	C	160	-	320	-
Collector Cutoff Current at $V_{CB}=18\text{V}$	I_{CBO}	-	-	0.5	μA
Emitter Cutoff Current at $V_{EB}=2\text{V}$	I_{EBO}	-	-	0.5	μA
Collector Emitter Saturation Voltage at $I_C=10\text{mA}$, $I_B=1\text{mA}$	$V_{CE(sat)}$	-	-	0.2	V
Transition Frequency at $V_{CE}=12\text{V}$, $I_C=2\text{mA}$	f_T	-	230	-	MHz
Base Emitter Voltage at $I_C=2\text{mA}$, $V_{CE}=12\text{V}$	V_{BE}	-	0.67	0.75	V
Collector Output Capacitance at $V_{CB}=10\text{V}$, $f=1\text{MHz}$	C_{ob}	-	1.8	3.5	pF
Collector Base Breakdown Voltage at $I_C=10\mu\text{A}$	V_{CBO}	55	-	-	V
Collector Emitter Breakdown Voltage at $I_C=1\text{mA}$	V_{CEO}	50	-	-	V
Emitter Base Breakdown Voltage at $I_C=10\mu\text{A}$	V_{EBO}	5	-	-	V
Noise Figure at $V_{CE}=6\text{V}$, $I_C=0.1\text{mA}$, $f=120\text{Hz}$, $R_g=500\Omega$	NF	-	3	5	dB
Small Signal Input Impedance at $V_{CE}=5\text{V}$, $I_C=0.1\text{mA}$, $f=270\text{Hz}$	h_{ie}	-	16.5	-	$k\Omega$
Small Signal Feedback Ratio at $V_{CE}=5\text{V}$, $I_C=0.1\text{mA}$, $f=270\text{Hz}$	h_{re}	-	70	-	$\times 10^{-6}$
Small Signal Current Transfer Ratio at $V_{CE}=5\text{V}$, $I_C=0.1\text{mA}$, $f=270\text{Hz}$	h_{fe}	-	130	-	-
Small Signal Output Admittance at $V_{CE}=5\text{V}$, $I_C=0.1\text{mA}$, $f=270\text{Hz}$	h_{oe}	-	11	-	μS



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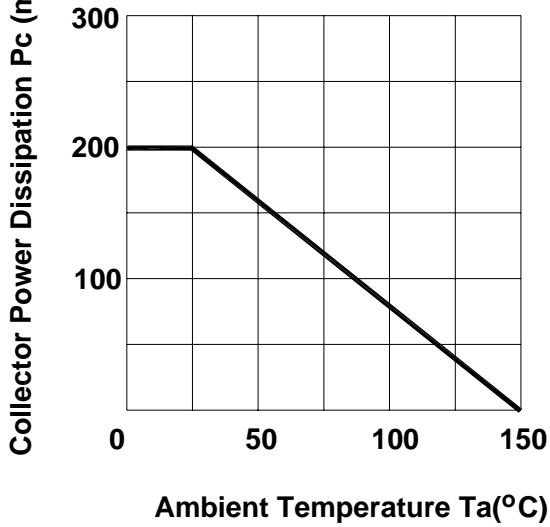


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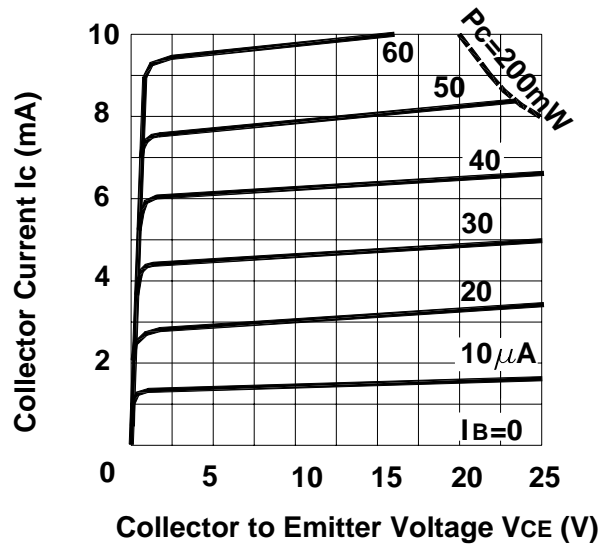
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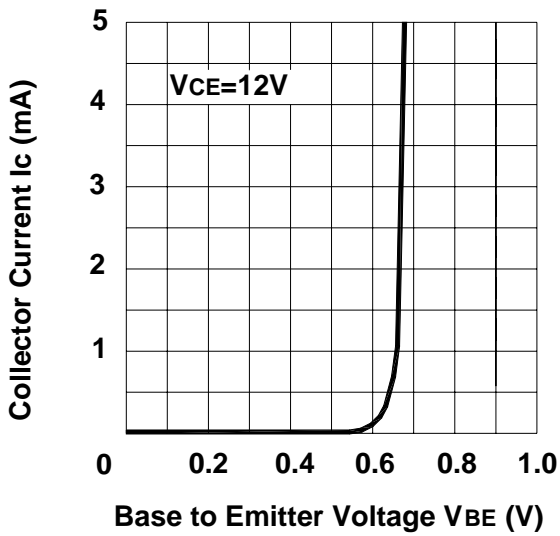
Maximum Collector Dissipation Curve



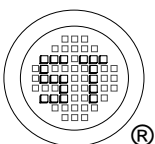
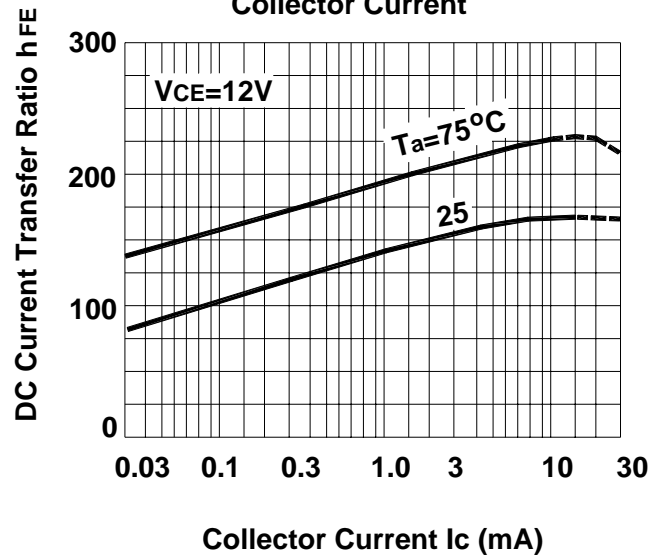
Typical Output Characteristics



Typical Transfer Characteristics



DC Current Transfer Ratio vs. Collector Current



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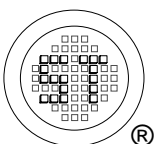
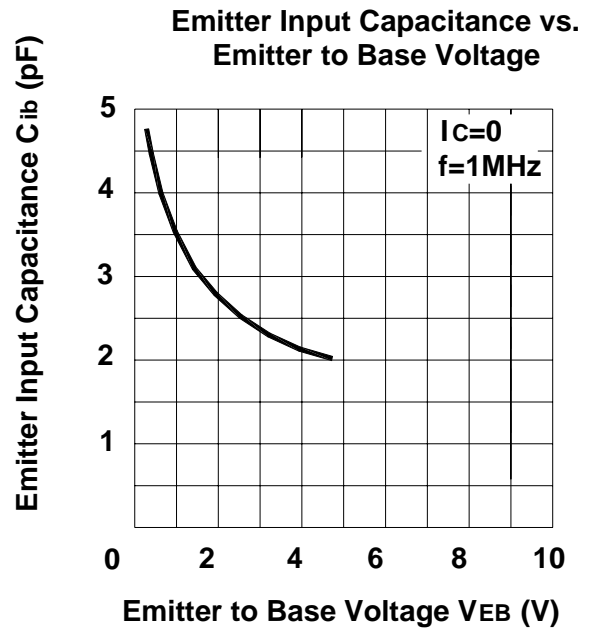
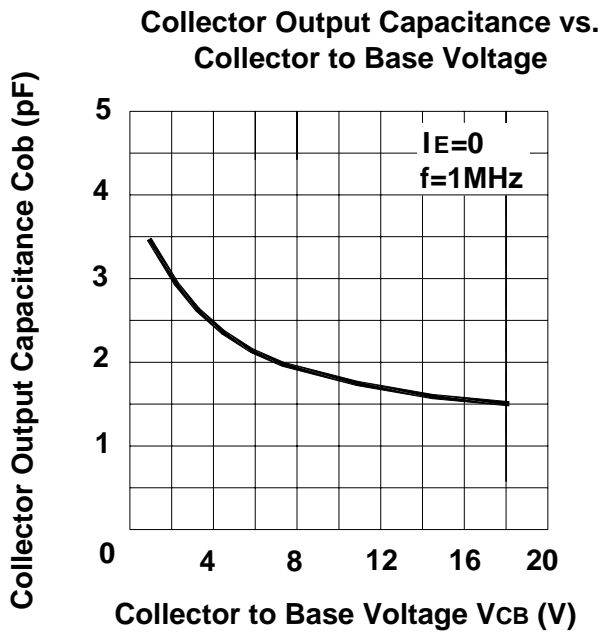
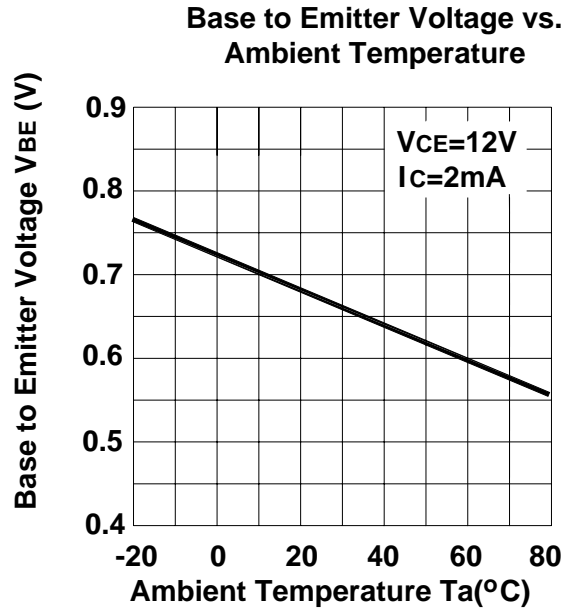
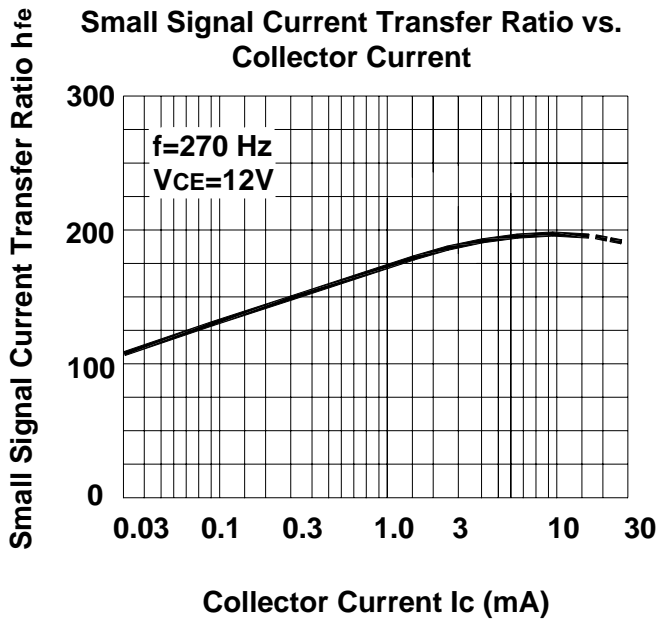


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