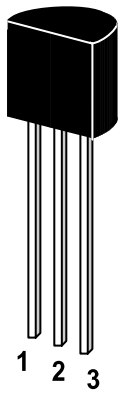
ST 2SC2310

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

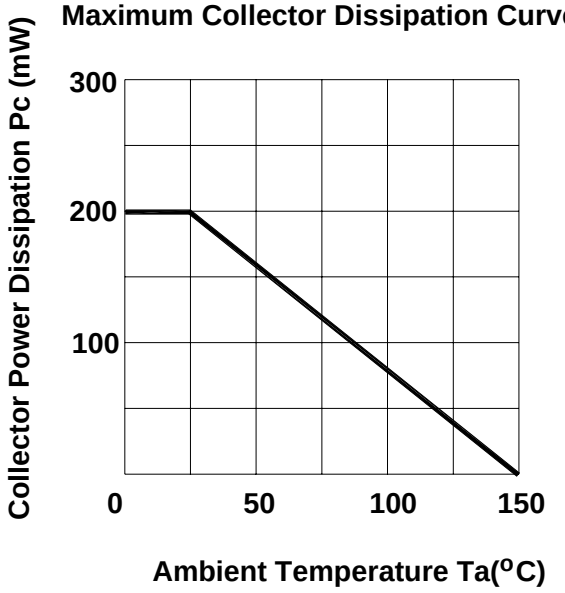
Absolute Maximum Ratings (Ta=25 ^{O}C)

	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	^{O}C
Storage Temperature Range	T_S	-55 to +150	^{O}C

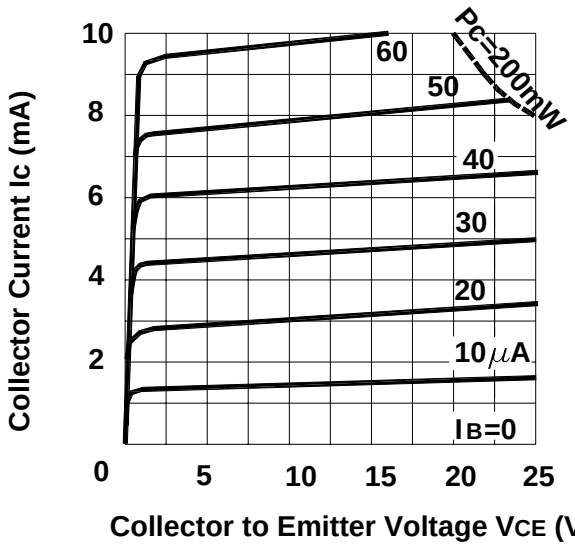
Characteristics at T_{amb}=25 °C

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V_{CE}=12V, I_C=2mA					
Current Gain Group B	h_{FE}	100	-	200	-
C	h_{FE}	160	-	320	-
Collector Cutoff Current at V_{CB}=18V	I_{CBO}	-	-	0.5	μA
Emitter Cutoff Current at V_{EB}=2V	I_{EBO}	-	-	0.5	μA
Collector Emitter Saturation Voltage at I_C=10mA, I_B=1mA	$V_{CE(sat)}$	-	-	0.2	V
Transition Frequency at V_{CE}=12V, I_C=2mA	f_T	-	230	-	MHz
Base Emitter Voltage at I_C=2mA, V_{CE}=12V	V_{BE}	-	0.67	0.75	V
Collector Output Capacitance at V_{CB}=10V, f=1MHz	C_{ob}	-	1.8	3.5	pF
Collector Base Breakdown Voltage at I_C=10μA	V_{CBO}	55	-	-	V
Collector Emitter Breakdown Voltage at I_C=1mA	V_{CEO}	50	-	-	V
Emitter Base Breakdown Voltage at I_C=10μA	V_{EBO}	5	-	-	V
Noise Figure at V_{CE}=6V, I_C=0.1mA, f=120Hz, R_g=500Ω	NF	-	3	5	dB
Small Signal Input Impedance at V_{CE}=5V, I_C=0.1mA,f=270Hz	h_{ie}	-	16.5	-	kΩ
Small Signal Feedback Ratio at V_{CE}=5V, I_C=0.1mA,f=270Hz	h_{re}	-	70	-	$X10^{-6}$
Small Signal Current Transfer Ratio at V_{CE}=5V, I_C=0.1mA,f=270Hz	h_{fe}	-	130	-	-
Small Signal Output Admittance at V_{CE}=5V, I_C=0.1mA,f=270Hz	h_{oe}	-	11	-	μS

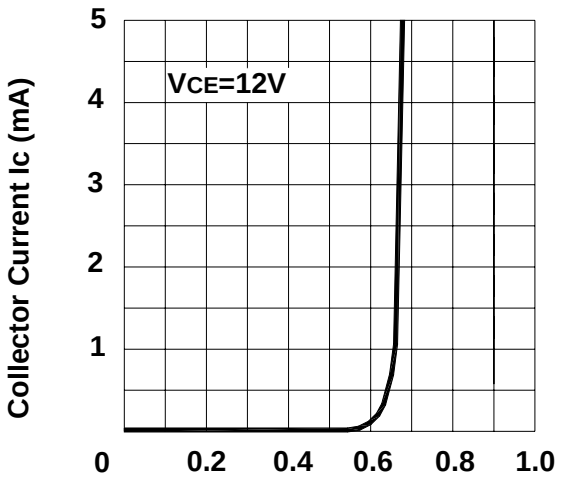
Maximum Collector Dissipation Curve



Typical Output Characteristics



Typical Transfer Characteristics



DC Current Transfer Ratio vs. Collector Current