

ST 2SC3190

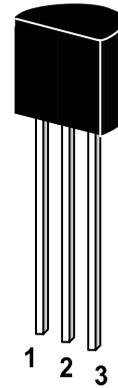
NPN Silicon Epitaxial Planar Transistor

High frequency low noise amplifier application

HF band amplifier application

The transistor is subdivided into three groups R, O and Y, according to its DC current gain

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



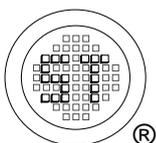
1. Emitter 2. Collector 3. Base

TO-92 Plastic Package

Weight approx. 0.19g

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

	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	35	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	4	V
Collector Current	I_C	100	mA
Emitter Current	I_E	-100	mA
Power Dissipation	P_{tot}	400	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_S	-55 to +125	$^\circ\text{C}$



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



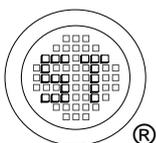
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Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=12\text{V}$, $I_C=2\text{mA}$ Current Gain Group	R	40	-	80	-
	O	70	-	140	-
	Y	120	-	240	-
Collector Cutoff Current at $V_{CB}=20\text{V}$	I_{CBO}	-	-	0.1	μA
Emitter Cutoff Current at $V_{EB}=2\text{V}$	I_{EBO}	-	-	1	μA
Collector Saturation Voltage at $I_C=10\text{mA}$, $I_B=1\text{mA}$	$V_{CE(sat)}$	-	-	0.4	V
Base Emitter Saturation Voltage at $I_C=10\text{mA}$, $I_B=1\text{mA}$	$V_{BE(sat)}$	-	-	1	V
Transition Frequency at $V_{CE}=10\text{V}$, $I_C=2\text{mA}$	f_T	80	120	-	MHz
Reverse Transfer Capacitance at $V_{CE}=10\text{V}$, $f=1\text{MHz}$	C_{re}	-	2.2	3	pF
Collector Base Time Constant at $V_{CE}=10\text{V}$, $I_E=-1\text{mA}$, $f=30\text{MHz}$	C_c, r_{bb}	-	30	50	ps
Noise Figure at $V_{CE}=10\text{V}$, $f=1\text{MHz}$, $I_E=-1\text{mA}$, $R_g=50\Omega$	NF	-	2	3.5	dB



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