

# 2SC3190

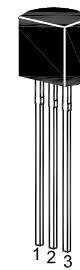
## NPN Silicon Epitaxial Planar Transistor

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.



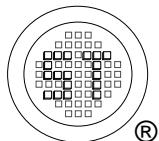
1. Emitter 2. Collector 3. Base  
TO-92 Plastic Package

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

Parameter	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	$T_j$	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 $V_{CE} = 12 \text{ V}$ , $I_C = 2 \text{ mA}$	$h_{FE}$	40	-	80	-
	$h_{FE}$	70	-	140	-
	$h_{FE}$	120	-	240	-
Collector Base Cutoff Current at $V_{CB} = 20 \text{ V}$	$I_{CBO}$	-	-	100	nA
Emitter Base Cutoff Current at $V_{EB} = 2 \text{ V}$	$I_{EBO}$	-	-	1	$\mu\text{A}$
Collector Emitter 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 $V_{CE} = 10 \text{ V}$ , $I_C = 2 \text{ mA}$	$f_T$	-	120	-	MHz
Reverse Transfer Capacitance at $V_{CE} = 10 \text{ V}$ , $f = 1 \text{ MHz}$	$C_{re}$	-	-	3	pF



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ISO/TS 16949 : 2009 ISO14001 : 2004 ISO 9001 : 2008 BS-OHSAS 18001 : 2007 IECQ QC 080000 Certificate No. 16073300 Certificate No. 7116 Certificate No. 50719410 Certificate No. 7116 Certificate No. PRC-HSPM-1483-1

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