

ST 2SC3195

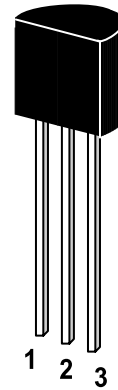
NPN Silicon Epitaxial Planar Transistor

High frequency low noise amplifier application

VHF 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.



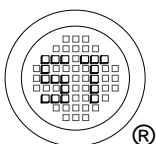
1. Emitter 2. Collector 3. Base

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} | 40 | V |
| Collector Emitter Voltage | V_{CEO} | 30 | V |
| Emitter Base Voltage | V_{EBO} | 4 | V |
| Collector Current | I_C | 20 | mA |
| Emitter Current | I_E | -20 | mA |
| Power Dissipation | P_{tot} | 100 | mW |
| Junction Temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage Temperature Range | T_S | -55 to +125 | $^\circ\text{C}$ |



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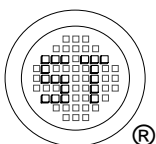


Dated : 07/12/2002

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

| | Symbol | Min. | Typ. | Max. | Unit |
|--|---------------|------|------|------|---------------|
| DC Current Gain at $V_{CE}=6\text{V}$, $I_C=1\text{mA}$ | | | | | |
| Current Gain Group R | h_{FE} | 40 | - | 80 | - |
| O | h_{FE} | 70 | - | 140 | - |
| Y | h_{FE} | 100 | - | 200 | - |
| Collector Cutoff Current at $V_{CB}=40\text{V}$ | I_{CBO} | - | - | 0.5 | μA |
| Emitter Cutoff Current at $V_{EB}=4\text{V}$ | I_{EBO} | - | - | 0.5 | μA |
| Transition Frequency at $V_{CE}=6\text{V}$, $I_C=1\text{mA}$ | f_T | - | 550 | - | MHz |
| Reverse Transfer Capacitance at $V_{CE}=6\text{V}$, $f=1\text{MHz}$ | C_{re} | - | 0.7 | - | pF |
| Collector Base Time Constant at $V_{CE}=6\text{V}$, $I_E=-1\text{mA}$, $f=30\text{MHz}$ | $C_{c,rb b'}$ | - | - | 20 | ps |
| Noise Figure at $V_{CC}=6\text{V}$, $f=100\text{MHz}$, $I_E=-1\text{mA}$ | NF | - | 2.5 | 5 | dB |
| Power Gain at $V_{CC}=6\text{V}$, $f=100\text{MHz}$, $I_E=-1\text{mA}$ | G_{pe} | - | 18 | - | dB |



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