

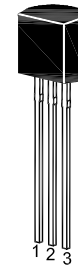
ST 2SC3199

NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into four groups, O, Y, G and L, according to its DC current gain.

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



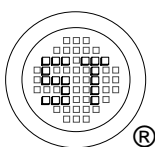
1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

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

| Parameter | Symbol | Value | Unit |
|---------------------------|-----------|---------------|------------------|
| Collector Base Voltage | V_{CBO} | 50 | V |
| Collector Emitter Voltage | V_{CEO} | 50 | V |
| Emitter Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 150 | mA |
| Emitter Current | I_E | -150 | mA |
| Power Dissipation | P_{tot} | 400 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 150 | $^\circ\text{C}$ |

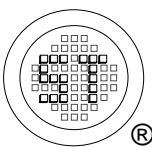
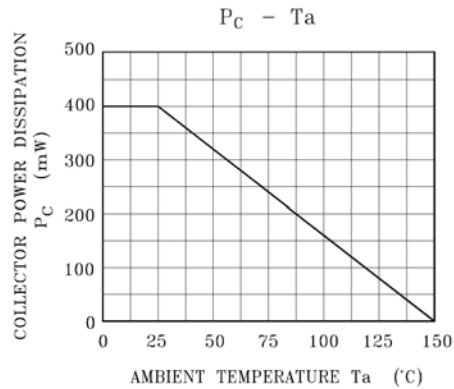
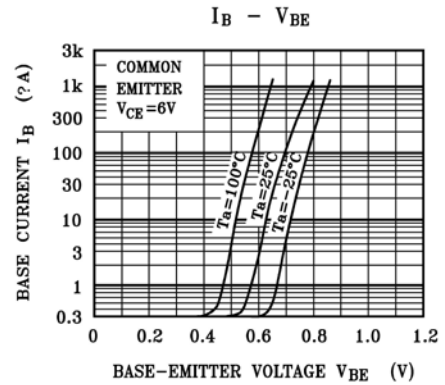
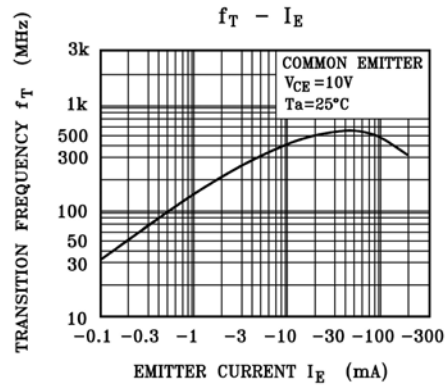
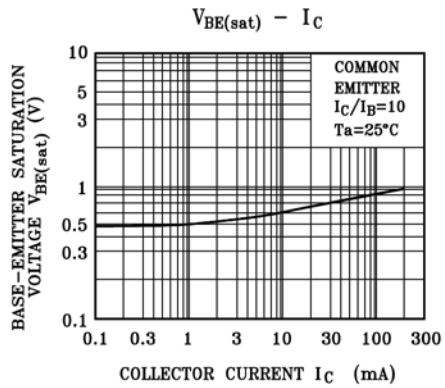
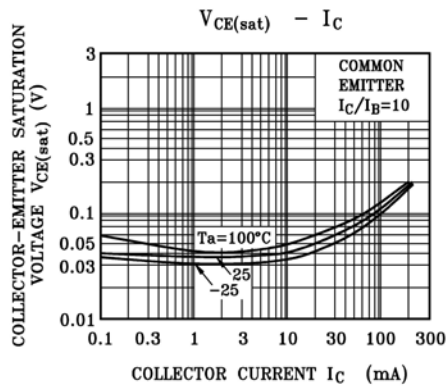
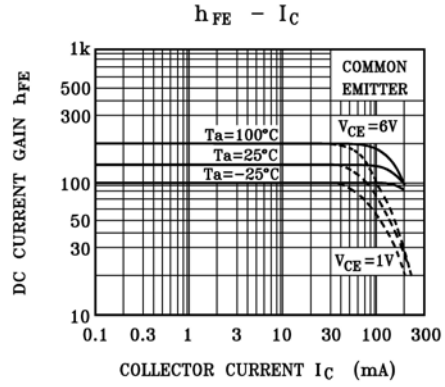
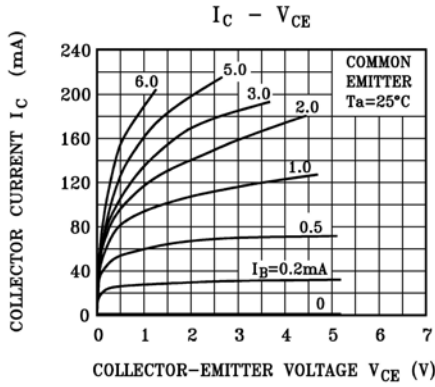
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter | Symbol | Min. | Max. | Unit | |
|---|---------------|----------|------|------|---|
| DC Current Gain at $V_{CE} = 6\text{ V}$, $I_C = 2\text{ mA}$ Current Gain Group | O | h_{FE} | 70 | 140 | - |
| | Y | h_{FE} | 120 | 240 | - |
| | G | h_{FE} | 200 | 400 | - |
| | L | h_{FE} | 350 | 700 | - |
| Collector Base Cutoff Current at $V_{CB} = 50\text{ V}$ | I_{CBO} | - | 100 | nA | |
| Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$ | I_{EBO} | - | 100 | nA | |
| Collector Emitter Saturation Voltage at $I_C = 100\text{ mA}$, $I_B = 10\text{ mA}$ | $V_{CE(sat)}$ | - | 0.25 | V | |
| Transition Frequency at $V_{CE} = 10\text{ V}$, $I_C = 1\text{ mA}$ | f_T | 80 | - | MHz | |
| Collector Output Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$ | C_{ob} | - | 3.5 | pF | |



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