

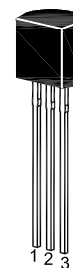
ST 2SC2786

NPN Silicon Epitaxial Planar Transistor

for FM RF amplifier and local oscillator of FM tuner.

The transistor is subdivided into three groups M, L, and K, according to its DC current gain.

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



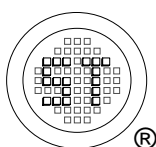
1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

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

| Parameter | Symbol | Value | Unit |
|---------------------------|-----------|---------------|------------------|
| Collector Base Voltage | V_{CBO} | 30 | V |
| Collector Emitter Voltage | V_{CEO} | 20 | V |
| Emitter Base Voltage | V_{EBO} | 4 | V |
| Collector Current | I_C | 20 | mA |
| Base Current | I_B | 20 | mA |
| Power Dissipation | P_{tot} | 250 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 150 | $^\circ\text{C}$ |

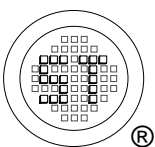
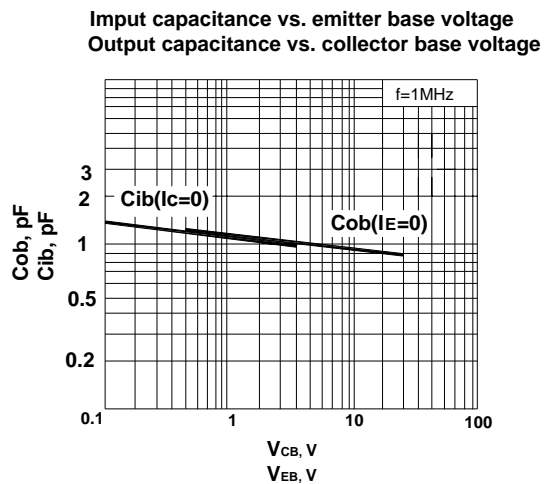
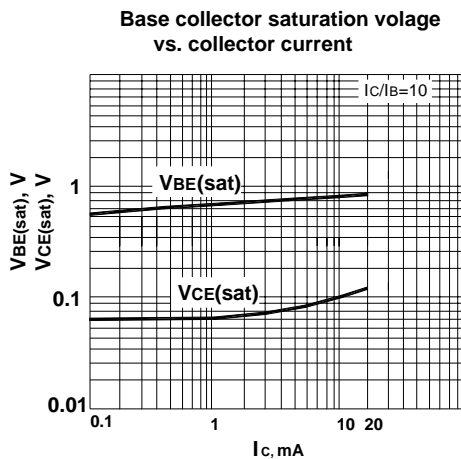
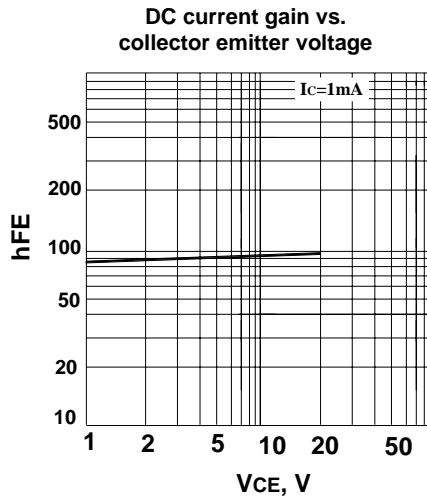
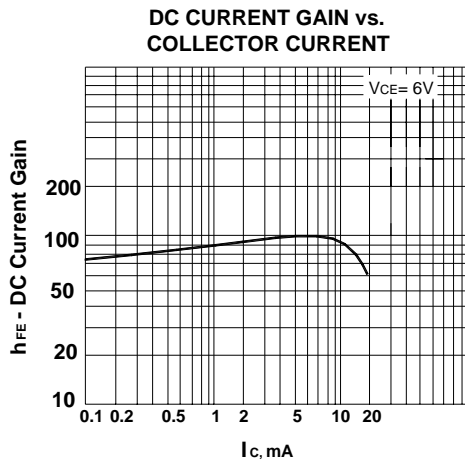
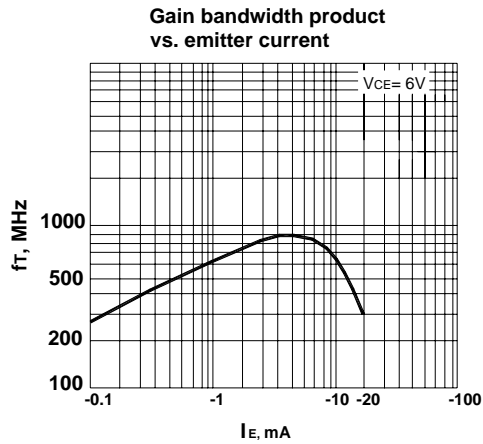
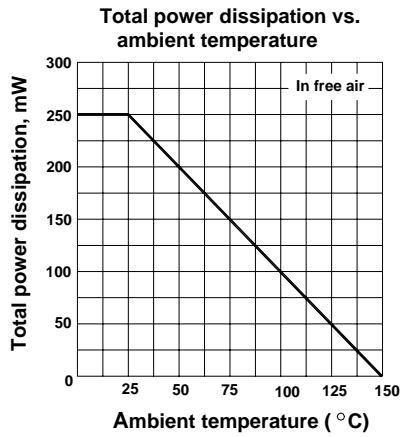
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter | Symbol | Min. | Typ. | Max. | Unit | |
|---|----------------------|----------|------|------|------|---|
| DC Current Gain at $V_{CE} = 6\text{ V}$, $I_C = 1\text{ mA}$ | Current Gain Group M | h_{FE} | 40 | - | 80 | - |
| | L | h_{FE} | 60 | - | 120 | - |
| | K | h_{FE} | 90 | - | 180 | - |
| Collector Base Cutoff Current at $V_{CB} = 30\text{ V}$ | I_{CBO} | - | - | 100 | nA | |
| Emitter Base Cutoff Current at $V_{EB} = 4\text{ V}$ | I_{EBO} | - | - | 100 | nA | |
| Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$, $I_B = 1\text{ mA}$ | $V_{CE(sat)}$ | - | - | 0.3 | V | |
| Gain Bandwidth Product at $V_{CE} = 6\text{ V}$, $I_E = -1\text{ mA}$ | f_T | - | 600 | - | MHz | |
| Output Capacitance at $V_{CB} = 6\text{ V}$, $f = 1\text{ MHz}$ | C_{ob} | - | - | 1.3 | pF | |



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