



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

ST 8050 (1.5A)

NPN Silicon Epitaxial Planar Transistor

for switching and amplifier applications.
Especially suitable for AF-driver stages
and low power output stages.

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



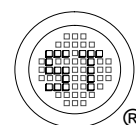
1. Emitter 2. Base 3. Collector
TO-92 Plastic Package
Weight approx. 0.19g

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

| Parameter | Symbol | Value | Unit |
|---------------------------|-----------|---------------|------------------|
| Collector Base Voltage | V_{CBO} | 40 | V |
| Collector Emitter Voltage | V_{CEO} | 25 | V |
| Emitter Base Voltage | V_{EBO} | 6 | V |
| Collector Current | I_C | 1.5 | A |
| Power Dissipation | P_{tot} | 1 | W |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_S | - 55 to + 150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|-------------------|------|------|------|------|
| DC Current Gain at $V_{CE} = 1\text{ V}$, $I_C = 5\text{ mA}$ at $V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$ at $V_{CE} = 1\text{ V}$, $I_C = 800\text{ mA}$ | 8050C h_{FE} | 45 | - | - | - |
| | 8050D h_{FE} | 120 | - | 200 | - |
| | h_{FE} | 160 | - | 300 | - |
| | h_{FE} | 40 | - | - | - |
| Collector Cutoff Current at $V_{CB} = 35\text{ V}$ | I_{CBO} | - | - | 100 | nA |
| Emitter Cutoff Current at $V_{BE} = 6\text{ V}$ | I_{EBO} | - | - | 100 | nA |
| Collector Base Breakdown Voltage at $I_C = 100\ \mu\text{A}$ | $V_{(BR)CBO}$ | 40 | - | - | V |
| Collector Emitter Breakdown Voltage at $I_C = 2\text{ mA}$ | $V_{(BR)CEO}$ | 25 | - | - | V |
| Emitter Base Breakdown Voltage at $I_E = 100\ \mu\text{A}$ | $V_{(BR)EBO}$ | 6 | - | - | V |
| Collector Emitter Saturation Voltage at $I_C = 800\text{ mA}$, $I_B = 80\text{ mA}$ | $V_{CE(sat)}$ | - | - | 0.5 | V |
| Base Emitter Saturation Voltage at $I_C = 800\text{ mA}$, $I_B = 80\text{ mA}$ | $V_{BE(sat)}$ | - | - | 1.2 | V |
| Base Emitter Voltage at $I_C = 10\text{ mA}$, $V_{CE} = 1\text{ V}$ | V_{BE} | - | - | 1 | V |
| Gain Bandwidth Product at $V_{CE} = 10\text{ V}$, $I_C = 50\text{ mA}$ | f_T | 120 | - | - | MHz |
| Collector Base Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$ | C_{OB} | - | 15 | - | pF |



Dated : 13/03/2007



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