

G8051

NPN EPITAXIAL TRANSISTOR

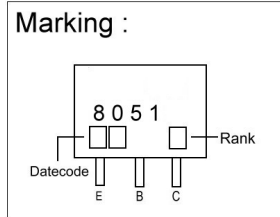
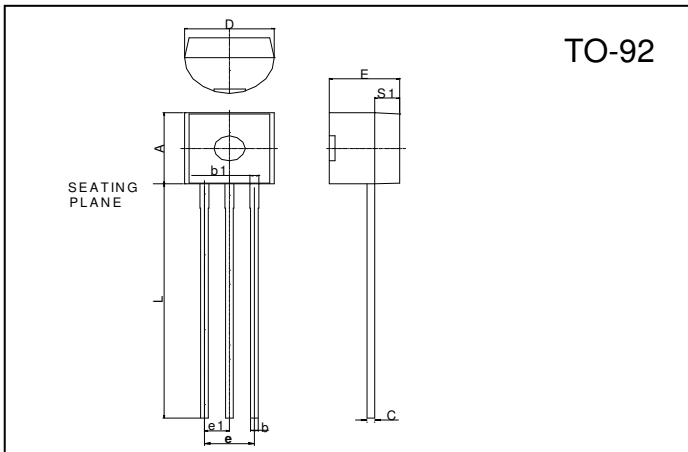
Description

The G8051 is designed for use in 2W output amplifier of portable radios in class B push-pull operation.

Features

- *High Collector current (IC: 1.5A)
- *Complementary to G8551

Package Dimensions



| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|------|------|------------|-------|
| | Min. | Max. | | Min. | Max. |
| A | 4.45 | 4.7 | D | 4.44 | 4.7 |
| S1 | 1.02 | - | E | 3.30 | 3.81 |
| b | 0.36 | 0.51 | L | 12.70 | - |
| b1 | 0.36 | 0.76 | e1 | 1.150 | 1.390 |
| C | 0.36 | 0.51 | e | 2.42 | 2.66 |

Absolute Maximum Ratings (Ta = 25°C, unless otherwise specified)

| Parameter | Symbol | Ratings | Unit |
|------------------------------|--------|------------|------|
| Collector to Base Voltage | VCBO | 40 | V |
| Collector to Emitter Voltage | VCEO | 25 | V |
| Emitter to Base Voltage | VEBO | 6 | V |
| Collect Current | IC | 1.5 | A |
| Base Current | IB | 0.5 | A |
| Junction Temperature | Tj | +150 | °C |
| Storage Temperature Range | TSTG | -55 ~ +150 | °C |
| Total Power Dissipation | PD | 1 | W |

Electrical Characteristics (Ta = 25°C, unless otherwise specified)

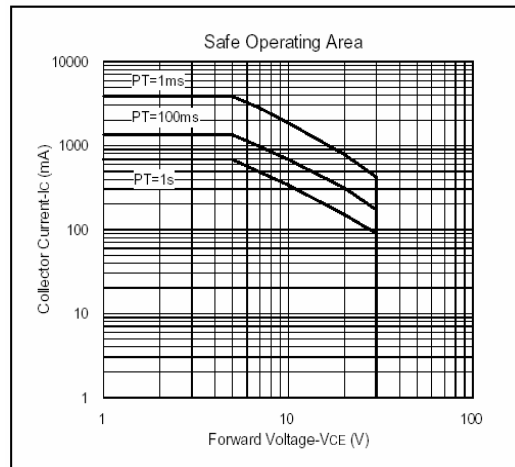
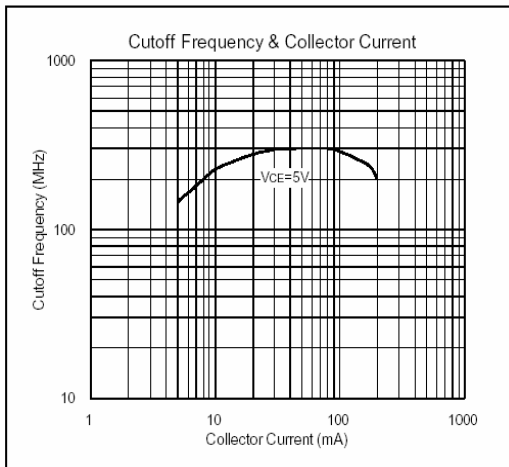
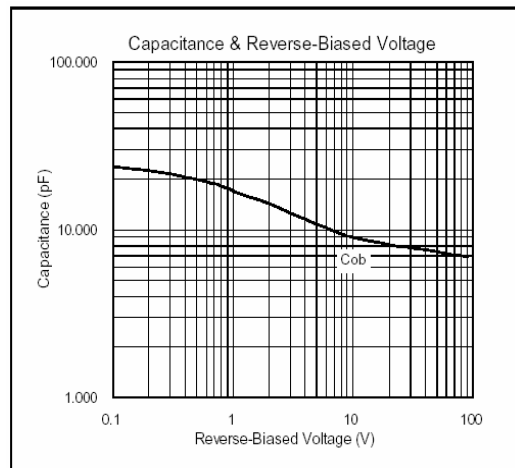
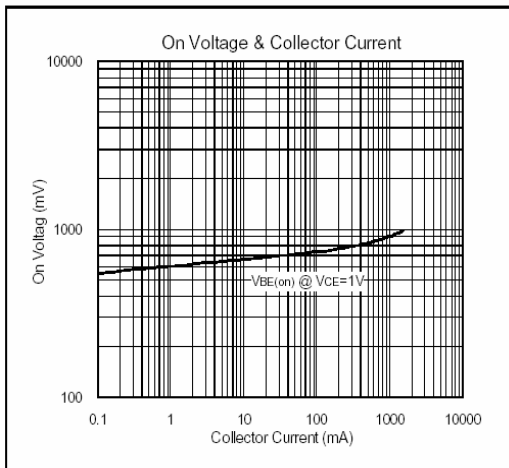
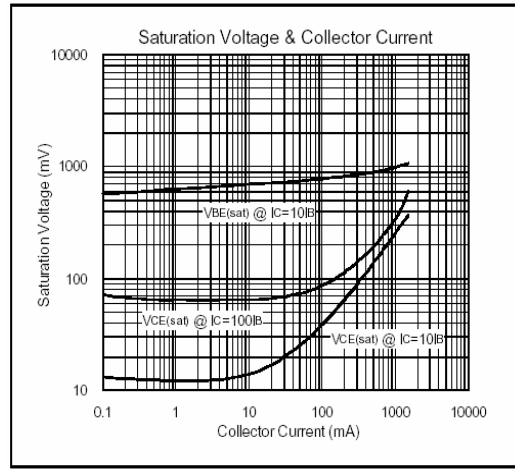
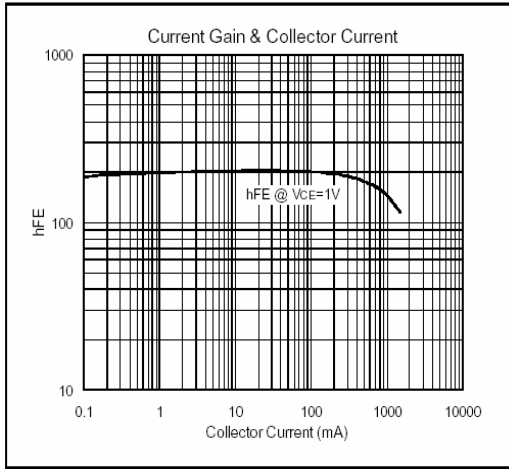
| Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|-----------|------|------|------|------|----------------------------|
| BVCBO | 40 | - | - | V | IC=100uA |
| BVCEO | 25 | - | - | V | IC=2mA |
| BVEBO | 6 | - | - | V | IE=100uA |
| ICBO | - | - | 100 | nA | VCB=35V |
| IEBO | - | - | 100 | nA | VBE=6V |
| *VCE(sat) | - | - | 0.5 | V | IC=800mA, IB=80mA |
| *VBE(sat) | - | - | 1.2 | V | IC=800mA, IB=80mA |
| *VBE(on) | - | - | 1 | V | VCE=1V, IC=10mA |
| *hFE1 | 45 | - | - | | VCE=1V, IC=5mA |
| *hFE2 | 120 | - | 500 | | VCE=1V, IC=100mA |
| *hFE3 | 40 | - | - | | VCE=1V, IC=800mA |
| fT | 100 | - | - | MHz | VCE=10V, IC=50mA, f=100MHz |
| Cob | - | 9 | - | pF | VCB=10V, IE=0, f=1MHz |

* Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

Classification Of hFE1

| Rank | C | D | E |
|-------|-----------|-----------|-----------|
| Range | 120 ~ 200 | 160 ~ 320 | 250 ~ 500 |

Characteristics Curve



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