

G8050

NPN EPITAXIAL TRANSISTOR

Description

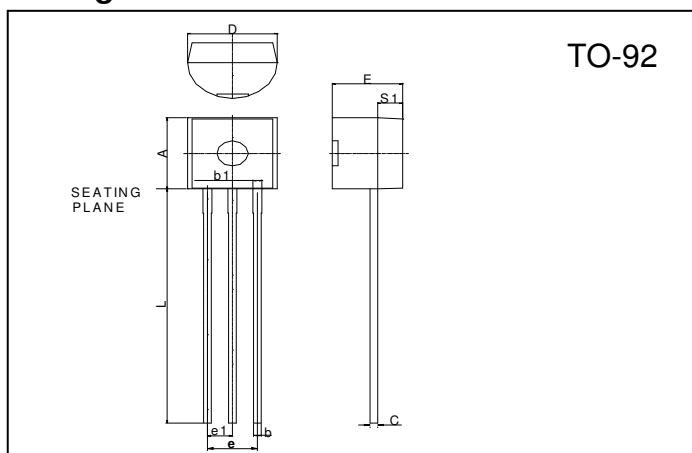
The G8050 is designed for use in 2W output amplifier of portable radios in class B push-pull operation.

Features

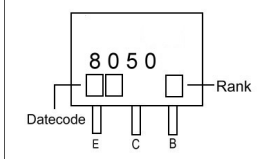
*High Collector current (I_C : 1.5A)

*Complementary to G8550

Package Dimensions



Marking :



| 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 ($T_a = 25^\circ\text{C}$, unless otherwise specified)

| Parameter | Symbol | Ratings | Unit |
|------------------------------|-----------|------------|------------------|
| Collector to Base Voltage | V_{CBO} | 40 | V |
| Collector to Emitter Voltage | V_{CEO} | 25 | V |
| Emitter to Base Voltage | V_{EBO} | 6 | V |
| Collect Current | I_C | 1.5 | A |
| Base Current | I_B | 0.5 | A |
| Junction Temperature | T_j | +150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 ~ +150 | $^\circ\text{C}$ |
| Total Power Dissipation | P_D | 1 | W |

Electrical Characteristics ($T_a = 25^\circ\text{C}$, unless otherwise specified)

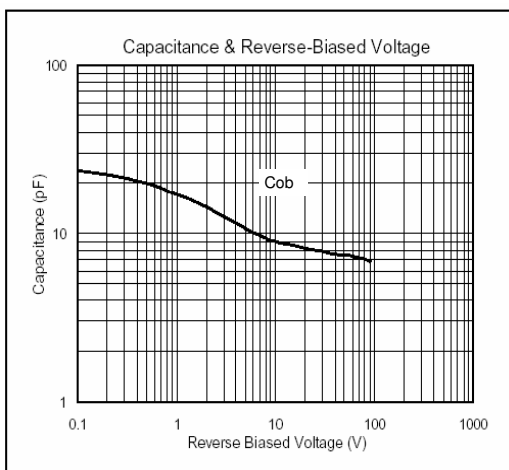
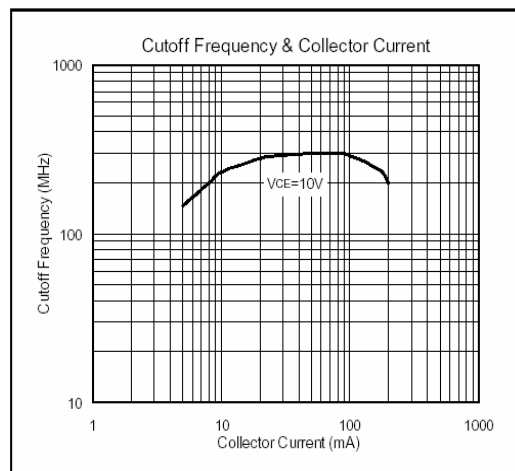
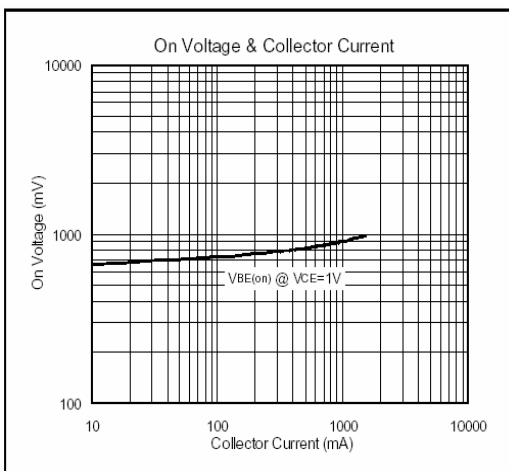
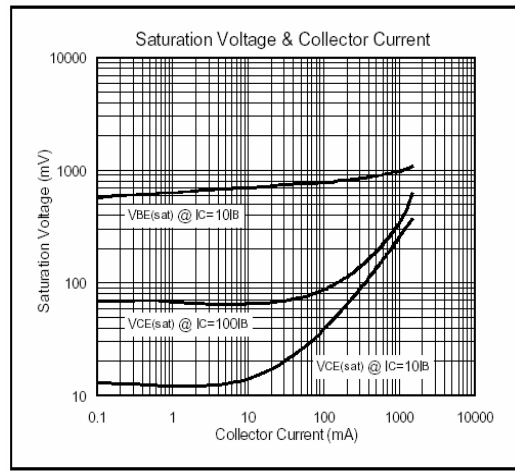
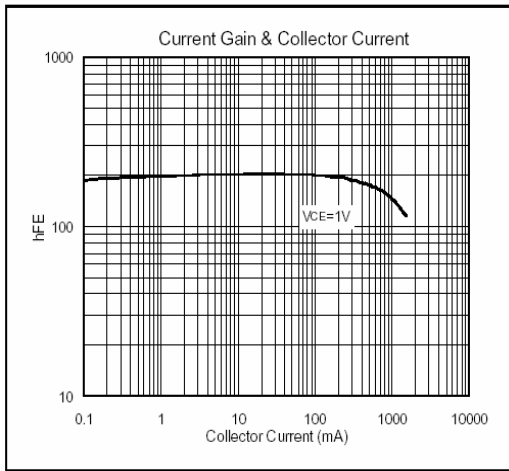
| Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|-----------------|------|------|------|------|---|
| V_{CBO} | 40 | - | - | V | $I_C=100\mu\text{A}$ |
| V_{CEO} | 25 | - | - | V | $I_C=2\text{mA}$ |
| V_{EBO} | 6 | - | - | V | $I_E=100\mu\text{A}$ |
| I_{CBO} | - | - | 100 | nA | $V_{CB}=35\text{V}$ |
| I_{EBO} | - | - | 100 | nA | $V_{BE}=6\text{V}$ |
| * $V_{CE(sat)}$ | - | - | 0.5 | V | $I_C=800\text{mA}$, $I_B=80\text{mA}$ |
| * $V_{BE(sat)}$ | - | - | 1.2 | V | $I_C=800\text{mA}$, $I_B=80\text{mA}$ |
| * $V_{BE(on)}$ | - | - | 1 | V | $V_{CE}=1\text{V}$, $I_C=10\text{mA}$ |
| * h_{FE1} | 45 | - | - | | $V_{CE}=1\text{V}$, $I_C=5\text{mA}$ |
| * h_{FE2} | 120 | - | 500 | | $V_{CE}=1\text{V}$, $I_C=100\text{mA}$ |
| * h_{FE3} | 40 | - | - | | $V_{CE}=1\text{V}$, $I_C=800\text{mA}$ |
| fT | 100 | - | - | MHz | $V_{CE}=10\text{V}$, $I_C=50\text{mA}$, $f=100\text{MHz}$ |
| Cob | - | 9 | - | pF | $V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$ |

* Pulse Test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$

Classification Of h_{FE2}

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

Characteristics Curve



Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of GTM.
- GTM reserves the right to make changes to its products without notice.
- GTM semiconductor products are not warranted to be suitable for use in life-support Applications, or systems.
- GTM assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

Head Office And Factory:

- Taiwan:** No. 17-1 Tatung Rd. Fu Kou Hsin-Chu Industrial Park, Hsin-Chu, Taiwan, R. O. C.
- TEL : 886-3-597-7061 FAX : 886-3-597-9220, 597-0785
- China:** (201203) No.255, Jang-Jiang Tsai-Lueng RD. , Pu-Dung-Hsin District, Shang-Hai City, China
- TEL : 86-21-5895-7671 ~ 4 FAX : 86-21-38950165