

2SB1439

Silicon PNP Epitaxial Planar Type

AF Output Amplifier

Complementary Pair with 2SD2183

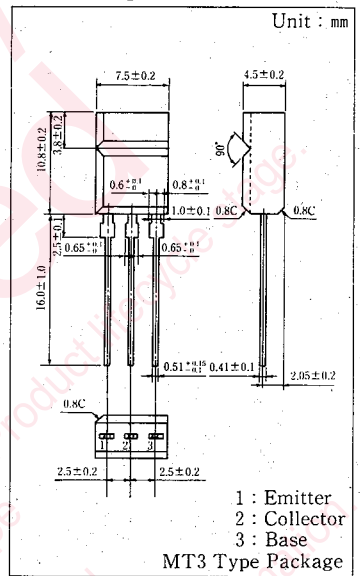
■ Features

- Low collector-emitter saturation voltage ($V_{CE(sat)}$)
- High collector-emitter voltage (V_{CEO})
- Automatic mounting by radial taping is possible.

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

| Item | Symbol | Value | Unit |
|-----------------------------|-----------|------------|------------------|
| Collector-base voltage | V_{CBO} | -100 | V |
| Collector-emitter voltage | V_{CEO} | -100 | V |
| Emitter-base voltage | V_{EBO} | -5 | V |
| Peak collector current | I_{CP} | -3 | A |
| Collector current | I_C | -2 | A |
| Collector power dissipation | P_C | 1.5 | W |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 ~ +150 | $^\circ\text{C}$ |

■ Package Dimensions

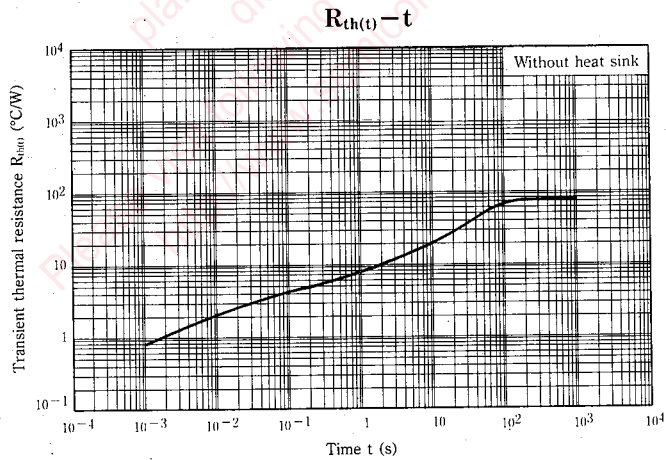
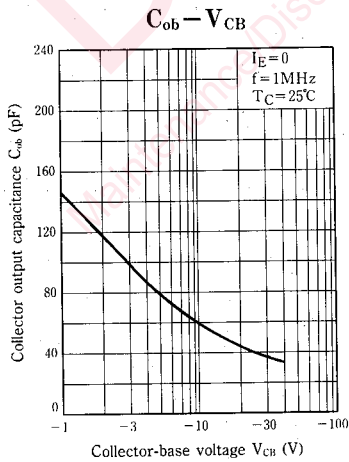
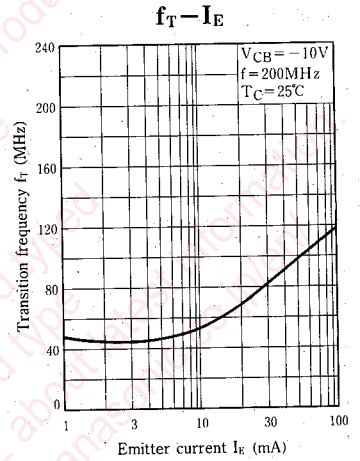
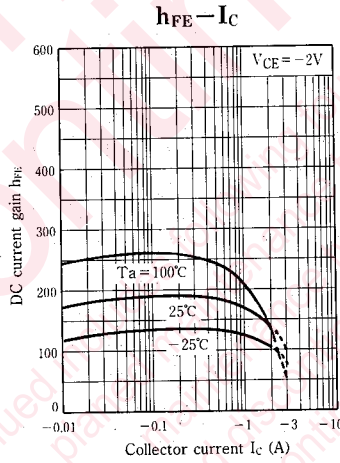
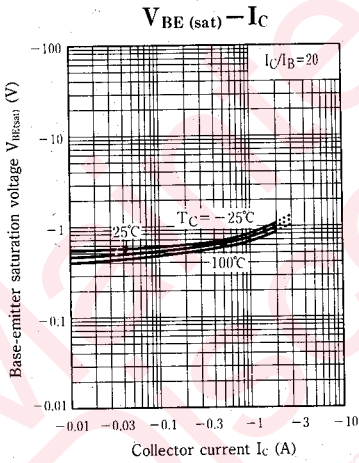
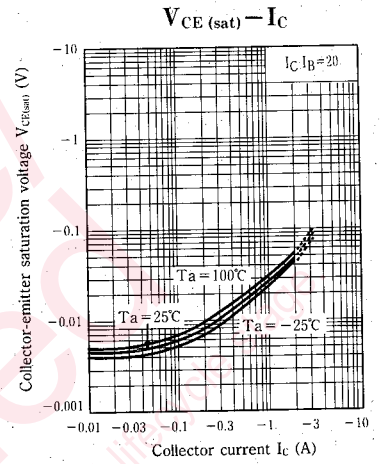
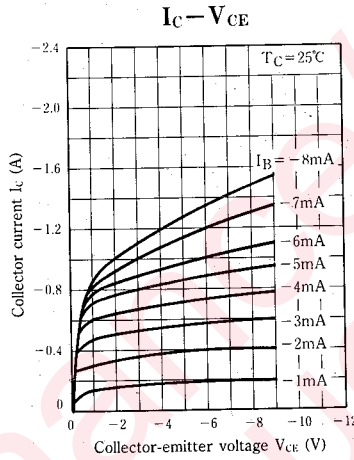
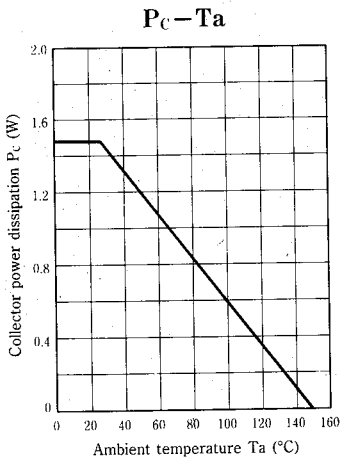


■ Electrical Characteristics ($T_c=25^\circ\text{C}$)

| Item | Symbol | Condition | min. | typ. | max. | Unit |
|--------------------------------------|---------------|--|------|-------|------|---------------|
| Collector cutoff current | I_{CBO} | $V_{CBO} = -50\text{V}, I_E = 0$ | | | -0.1 | μA |
| Collector-base voltage | V_{CBO} | $I_C = -10\mu\text{A}, I_E = 0$ | -100 | | | V |
| Collector-emitter voltage | V_{CEO} | $I_C = -1\text{mA}, I_B = 0$ | -100 | | | V |
| Emitter-base voltage | V_{EBO} | $I_E = -10\mu\text{A}, I_C = 0$ | -5 | | | V |
| DC current gain | h_{FE1}^* | $V_{CE} = -2\text{V}, I_C = -200\text{mA}$ | 120 | | 340 | |
| | h_{FE2} | $V_{CE} = -2\text{V}, I_C = -1\text{A}$ | 80 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -1\text{A}, I_B = -50\text{mA}$ | | -0.17 | -0.3 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = -1\text{A}, I_B = -50\text{mA}$ | | -0.85 | -1.2 | V |
| Transition frequency | f_T | $V_{CB} = -10\text{V}, I_E = 50\text{mA}, f = 200\text{MHz}$ | | 60 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$ | | 60 | 80 | pF |

* h_{FE1} Classifications

| Class | R | S |
|-----------|---------|---------|
| h_{FE1} | 120~240 | 170~340 |



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