
2SB1494

Silicon PNP Triple Diffused

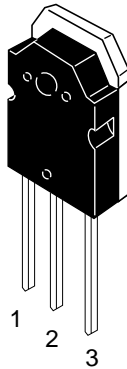
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Application

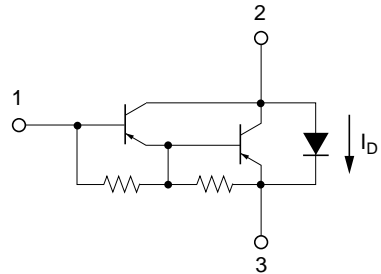
Low frequency power amplifier complementary Pair with 2SD2256

Outline

TO-3P



1. Base
2. Collector (Flange)
3. Emitter



Absolute Maximum Ratings (Ta = 25°C)

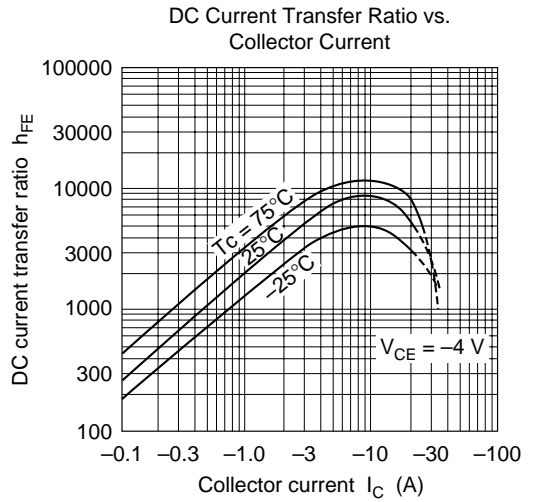
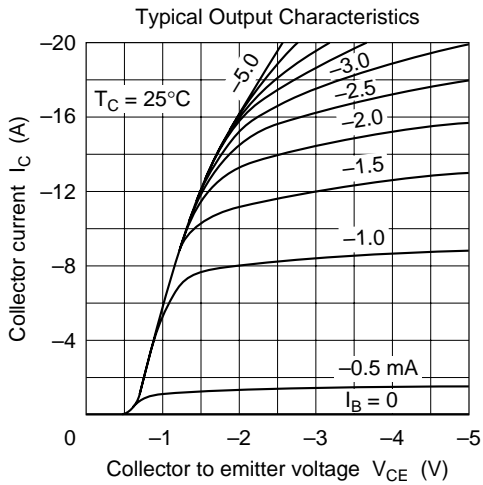
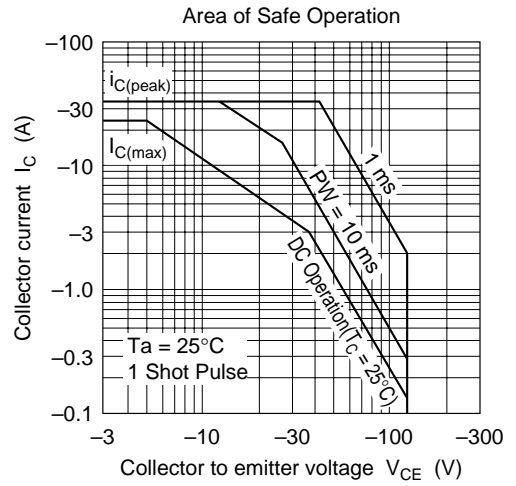
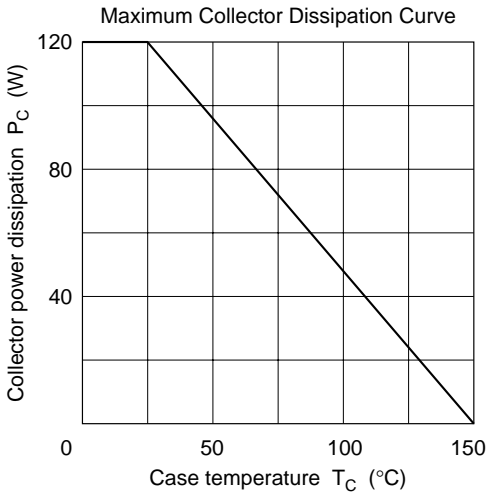
| Item | Symbol | Ratings | Unit |
|------------------------------|---------------|-------------|------|
| Collector to base voltage | V_{CBO} | -120 | V |
| Collector to emitter voltage | V_{CEO} | -120 | V |
| Emitter to base voltage | V_{EBO} | -7 | V |
| Collector current | I_C | -25 | A |
| Collector peak current | $I_{C(peak)}$ | -35 | A |
| Collector power dissipation | P_C^{*1} | 120 | W |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -55 to +150 | °C |
| C to E diode forward current | I_D^{*1} | 25 | A |

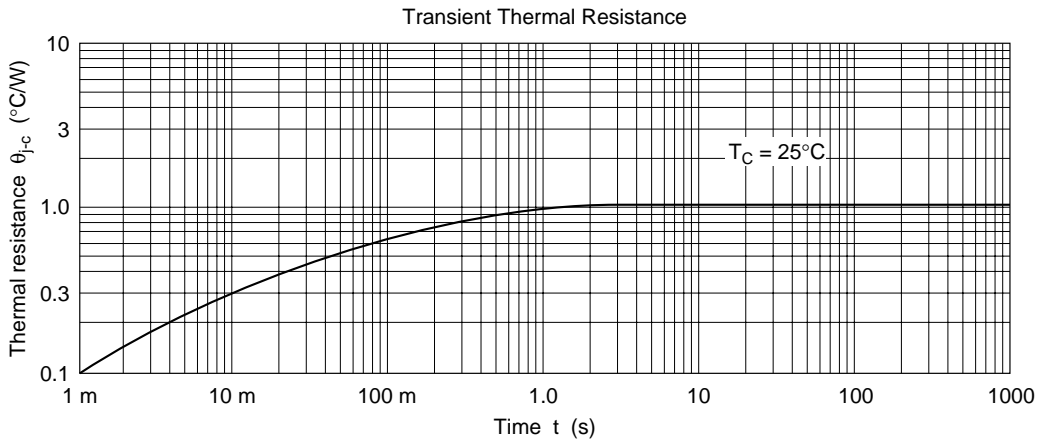
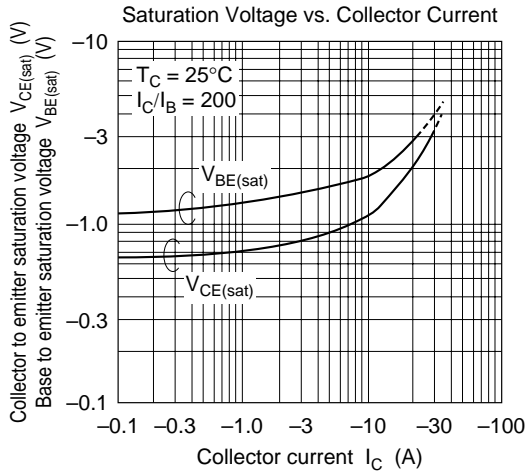
Note: 1. Value at $T_C = 25^\circ\text{C}$.

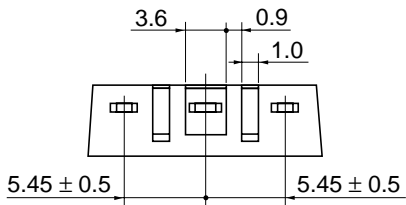
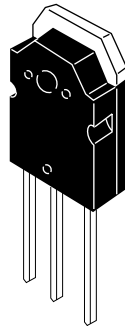
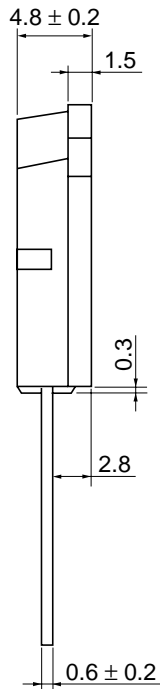
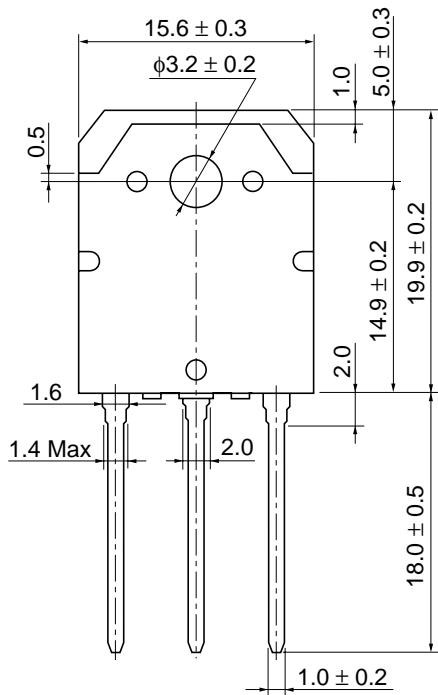
Electrical Characteristics (Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|----------------|------|-----|-------|---------------|---|
| Collector to base breakdown voltage | $V_{(BR)CBO}$ | -120 | — | — | V | $I_C = -0.1 \text{ mA}, I_E = 0$ |
| Collector to emitter breakdown voltage | $V_{(BR)CEO}$ | -120 | — | — | V | $I_C = -25 \text{ mA}, R_{BE} = \infty$ |
| Collector to emitter sustain voltage | $V_{CEO(sus)}$ | -120 | — | — | V | $I_C = -200 \text{ mA}, R_{BE} = \infty$ |
| Emitter to base breakdown voltage | $V_{(BR)EBO}$ | -7 | — | — | V | $I_E = -50 \text{ mA}, I_C = 0$ |
| Collector cutoff current | I_{CBO} | — | — | -10 | μA | $V_{CB} = -100 \text{ V}, I_E = 0$ |
| | I_{CEO} | — | — | -10 | | $V_{CE} = -100 \text{ V}, R_{BE} = \infty$ |
| DC current transfer ratio | h_{FE1} | 2000 | — | 20000 | | $V_{CE} = -4 \text{ V}, I_C = -12 \text{ A}^{*1}$ |
| | h_{FE2} | 500 | — | — | | $V_{CE} = -4 \text{ V}, I_C = -25 \text{ A}^{*1}$ |
| Collector to emitter saturation voltage | $V_{CE(sat)1}$ | — | — | -2.0 | V | $I_C = -12 \text{ A}, I_B = -24 \text{ mA}^{*1}$ |
| | $V_{CE(sat)2}$ | — | — | -3.5 | | $I_C = -25 \text{ A}, I_B = -250 \text{ mA}^{*1}$ |
| Base to emitter saturation voltage | $V_{BE(sat)1}$ | — | — | -3.0 | V | $I_C = -12 \text{ A}, I_B = -24 \text{ mA}$ |
| | $V_{BE(sat)2}$ | — | — | -4.5 | | $I_C = -25 \text{ A}, I_B = -250 \text{ mA}^{*1}$ |

Note: 1. Pulse test.







| | |
|--------------------------|----------|
| Hitachi Code | TO-3P |
| JEDEC | — |
| EIAJ | Conforms |
| Weight (reference value) | 5.0 g |

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