

2SB1392

Silicon PNP Triple Diffused

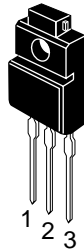
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Application

Low frequency power amplifier

Outline

TO-220FM



- 1. Base
- 2. Collector
- 3. Emitter

Absolute Maximum Ratings (Ta = 25°C)

| Item | Symbol | Ratings | Unit |
|------------------------------|---------------|-------------|------|
| Collector to base voltage | V_{CBO} | -70 | V |
| Collector to emitter voltage | V_{CEO} | -60 | V |
| Emitter to base voltage | V_{EBO} | -5 | V |
| Collector current | I_C | -4 | A |
| Collector peak current | $I_{C(peak)}$ | -8 | A |
| Collector power dissipation | P_C | 2 | W |
| | P_C^{*1} | 25 | |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -55 to +150 | °C |

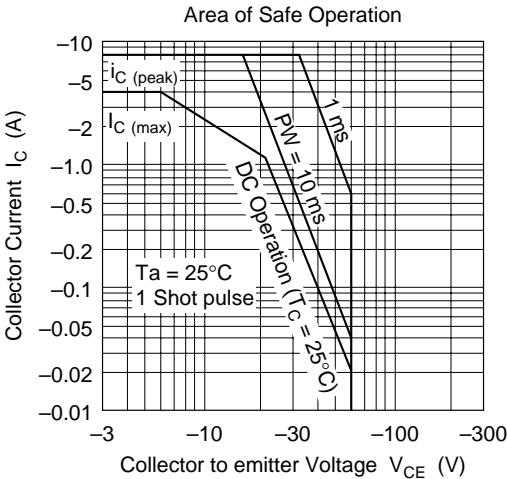
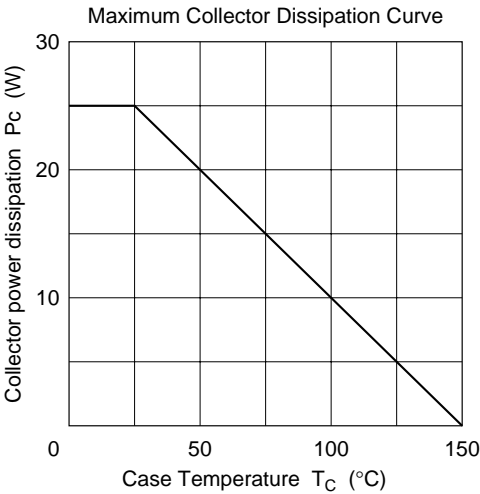
Note: 1. Value at $T_C = 25^\circ\text{C}$.

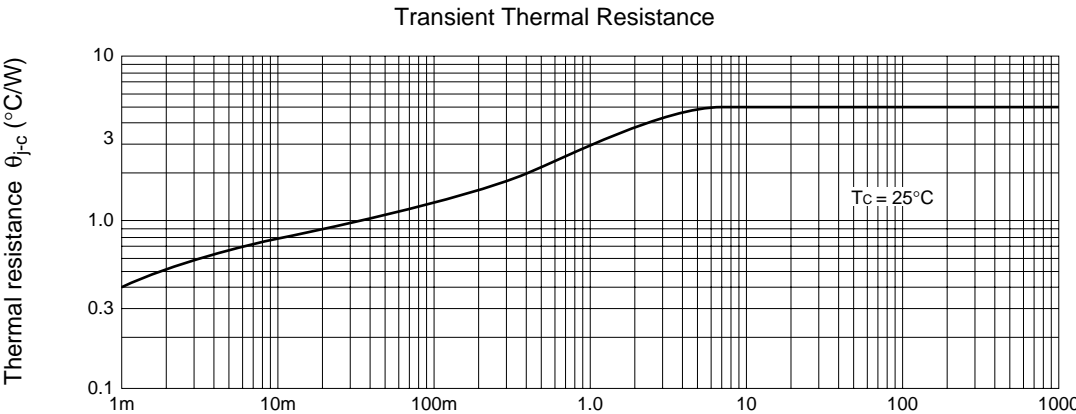
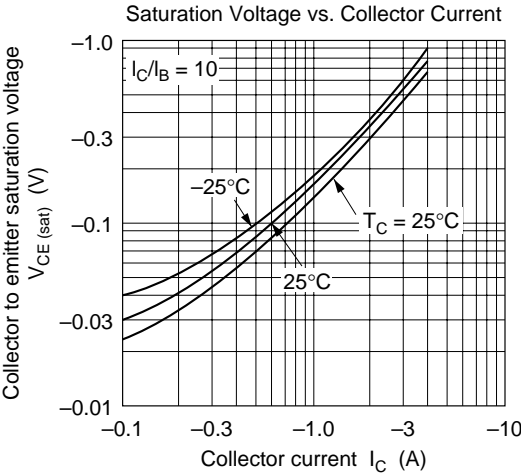
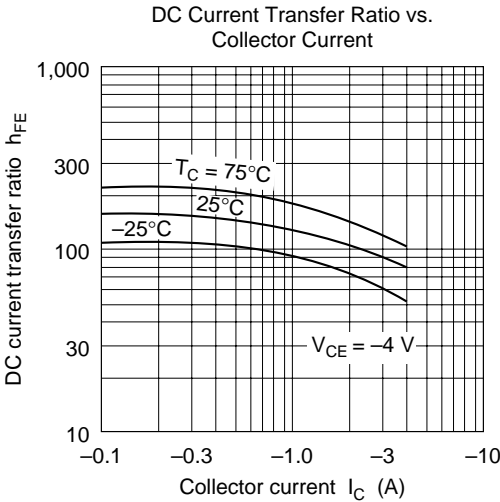
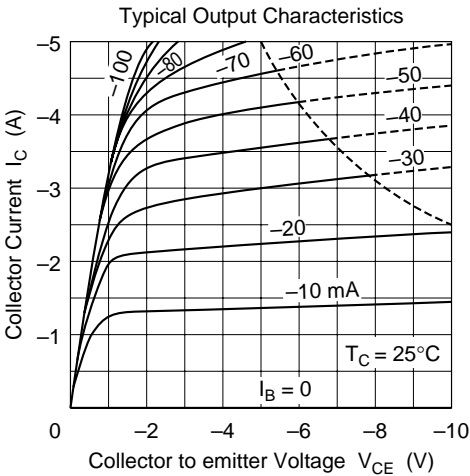
Electrical Characteristics (Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|----------------|-----|-----|------|---------------|---|
| Collector to base breakdown voltage | $V_{(BR)CBO}$ | -70 | — | — | V | $I_C = -10\text{ }\mu\text{A}$, $I_E = 0$ |
| Collector to emitter breakdown voltage | $V_{(BR)CEO}$ | -60 | — | — | V | $I_C = -50\text{ mA}$, $R_{BE} = \infty$ |
| Emitter to base breakdown voltage | $V_{(BR)EBO}$ | -5 | — | — | V | $I_E = -10\text{ }\mu\text{A}$, $I_C = 0$ |
| Collector cutoff current | I_{CBO} | — | — | -10 | μA | $V_{CB} = -50\text{ V}$, $I_E = 0$ |
| | I_{CEO} | — | — | -10 | | $V_{CE} = -50\text{ V}$, $R_{BE} = \infty$ |
| DC current transfer ratio | h_{FE1}^{*2} | 60 | — | 200 | | $V_{CE} = -4\text{ V}$, $I_C = -1\text{ A}^{*1}$ |
| | h_{FE2} | 35 | — | — | | $V_{CE} = -4\text{ V}$, $I_C = -0.1\text{ A}^{*1}$ |
| Base to emitter voltage | V_{BE} | — | — | -1.0 | V | $V_{CE} = -4\text{ V}$, $I_C = -1\text{ A}^{*1}$ |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | — | — | -1.0 | V | $I_C = -2.0\text{ A}$, $I_B = -0.2\text{ A}^{*1}$ |
| Base to emitter saturation voltage | $V_{BE(sat)}$ | — | — | -1.2 | V | $I_C = -2.0\text{ A}$, $I_B = -0.2\text{ A}^{*1}$ |

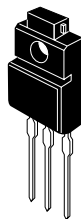
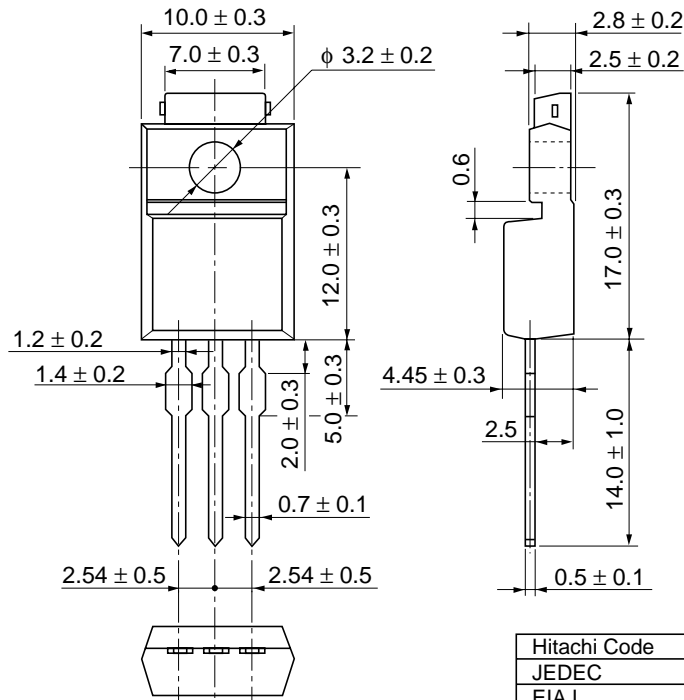
- Notes: 1. Pulse test.
2. The 2SB1392 is grouped by h_{FE1} as follows.

| B | C |
|-----------|------------|
| 60 to 120 | 100 to 200 |





Unit: mm



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| Hitachi Code | TO-220FM |
| JEDEC | — |
| EIAJ | Conforms |
| Weight (reference value) | 1.8 g |

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Hitachi, Ltd.

Semiconductor & Integrated Circuits.
Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109

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For further information write to:

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| Hitachi Semiconductor (America) Inc. 179 East Tasman Drive, San Jose, CA 95134 Tel: <1> (408) 433-1990 Fax: <1> (408) 433-0223 | Hitachi Europe GmbH Electronic components Group Dornacher Straße 3 D-85622 Feldkirchen, Munich Germany Tel: <49> (89) 9 9180-0 Fax: <49> (89) 9 29 30 00 Hitachi Europe Ltd. Electronic Components Group. Whitebrook Park Lower Cookham Road Maidenhead Berkshire SL6 8YA, United Kingdom Tel: <44> (1628) 585000 Fax: <44> (1628) 778322 |
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| Hitachi Asia Pte. Ltd. 16 Collyer Quay #20-00 Hitachi Tower Singapore 049318 Tel: 535-2100 Fax: 535-1533 Hitachi Asia Ltd. Taipei Branch Office 3F, Hung Kuo Building, No.167, Tun-Hwa North Road, Taipei (105) Tel: <886> (2) 2718-3666 Fax: <886> (2) 2718-8180 |
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| Hitachi Asia (Hong Kong) Ltd. Group III (Electronic Components) 7/F., North Tower, World Finance Centre, Harbour City, Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong Tel: <852> (2) 735 9218 Fax: <852> (2) 730 0281 Telex: 40815 HITEC HX |
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