
2SD2300

Silicon NPN Triple Diffused

HITACHI

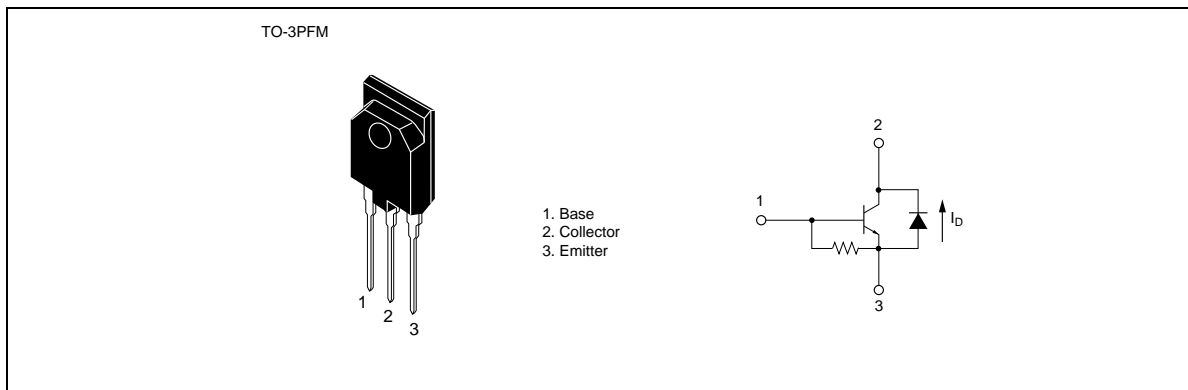
Application

CTV horizontal deflection output

Features

- High breakdown voltage
 $V_{CBO} = 1500 \text{ V}$
- Built-in damper diode type

Outline



2SD2300

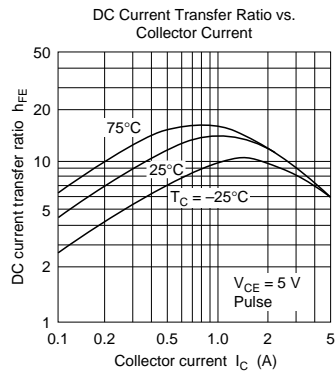
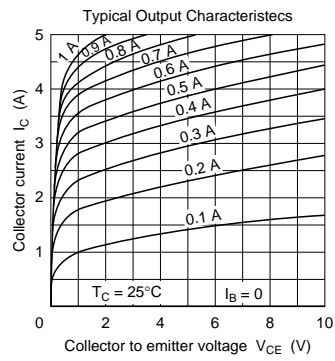
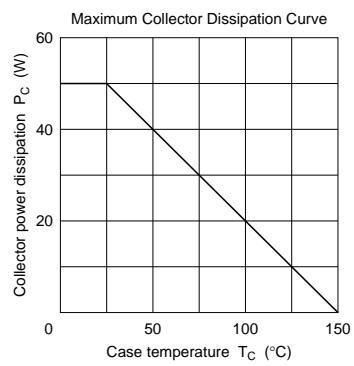
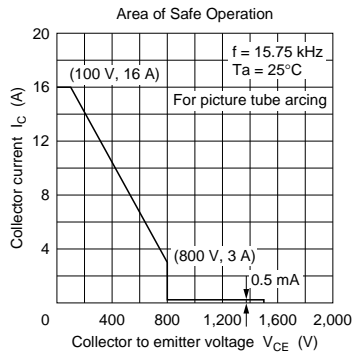
Absolute Maximum Ratings (Ta = 25°C)

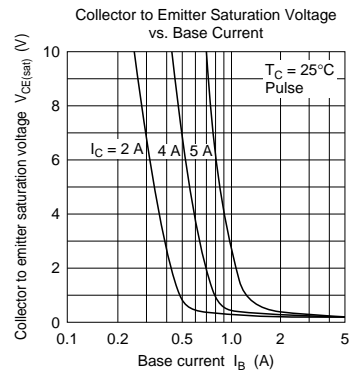
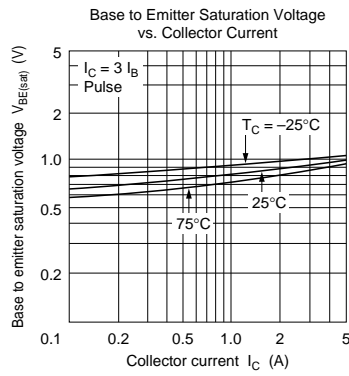
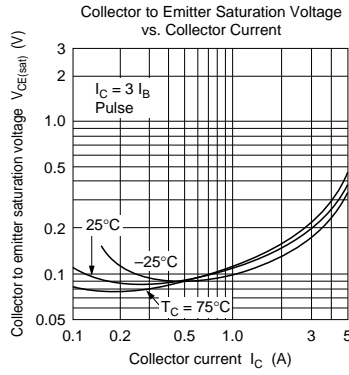
| Item | Symbol | Ratings | Unit |
|------------------------------|----------------|-------------|------|
| Collector to emitter voltage | V_{CES} | 1500 | V |
| Emitter to base voltage | V_{EBO} | 6 | V |
| Collector current | I_C | 5 | A |
| Collector peak current | $I_{C(peak)}$ | 6 | A |
| Collector surge current | $I_{C(surge)}$ | 16 | A |
| Collector power dissipation | P_C^{*1} | 50 | W |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -55 to +150 | °C |
| C to E diode forward current | I_D | 6 | A |

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

Electrical Characteristics (Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|---------------|-----|-----|-----|---------------|--|
| Emitter to base breakdown voltage | $V_{(BR)EBO}$ | 6 | — | — | V | $I_E = 350\text{ mA}, I_C = 0$ |
| Collector cutoff current | I_{CES} | — | — | 500 | μA | $V_{CE} = 1500\text{ V}, R_{BE} = 0$ |
| DC current transfer ratio | h_{FE} | — | — | 20 | | $V_{CE} = 5\text{ V}, I_C = 1\text{ A}$ |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | — | — | 5 | V | $I_C = 4.5\text{ A}, I_B = 1.2\text{ A}$ |
| Base to emitter saturation voltage | $V_{BE(sat)}$ | — | — | 1.5 | V | $I_C = 4.5\text{ A}, I_B = 1.2\text{ A}$ |
| C to E diode forward voltage | V_{ECF} | — | — | 3.0 | V | $I_F = 6\text{ A}$ |
| Fall time | t_f | — | — | 1.0 | μs | $I_{CP} = 4\text{ A}, I_{B1} = 0.8\text{ A}, I_{B2} \approx -1.5\text{ A}$ |





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HITACHI

Hitachi, Ltd.
Semiconductor & IC Div.
Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100, Japan
Tel: Tokyo (03) 3270-2111
Fax: (03) 3270-5109

For further information write to:

Hitachi America, Ltd.
Semiconductor & IC Div.
2000 Sierra Point Parkway
Brisbane, CA. 94005-1835
U S A
Tel: 415-589-8300
Fax: 415-583-4207

Hitachi Europe GmbH
Electronic Components Group
Continental Europe
Dornacher Straße 3
D-85622 Feldkirchen
München
Tel: 089-9 91 80-0
Fax: 089-9 29 30 00

Hitachi Europe Ltd.
Electronic Components Div.
Northern Europe Headquarters
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA
United Kingdom
Tel: 0628-585000
Fax: 0628-778322

Hitachi Asia Pte. Ltd.
16 Collyer Quay #20-00
Hitachi Tower
Singapore 0104
Tel: 535-2100
Fax: 535-1533

Hitachi Asia (Hong Kong) Ltd.
Unit 706, North Tower,
World Finance Centre,
Harbour City, Canton Road
Tsim Sha Tsui, Kowloon
Hong Kong
Tel: 27359218
Fax: 27306071