

To our customers,

Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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EOL announced Product

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Renesas Technology Home Page: <http://www.renesas.com>

Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

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2SB955(K)

Silicon PNP Triple Diffused

RENESAS

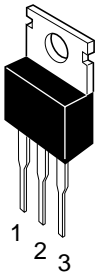
ADE-208-863 (Z)
1st. Edition
September 2000

Application

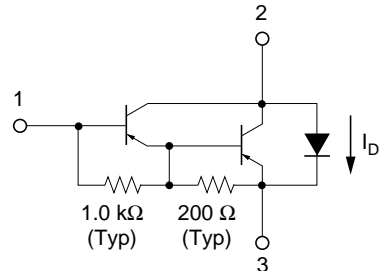
Power switching complementary pair with 2SD1126(K)

Outline

TO-220AB



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



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Absolute Maximum Ratings (Ta = 25°C)

| Item | Symbol | Rating | 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 | -10 | A |
| Collector peak current | $I_{C(peak)}$ | -15 | A |
| C to E diode forward current | I_D^{*1} | 10 | A |
| Collector power dissipation | P_C^{*2} | 50 | W |
| Junction temperature | Tj | 150 | °C |
| Storage temperature | Tstg | -55 to +150 | °C |

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

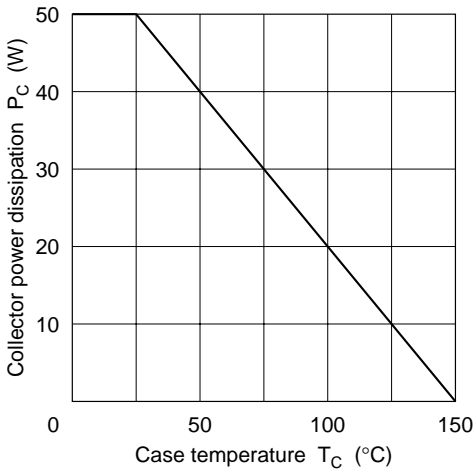
2. $PW \leq 1$ ms 1 shot

Electrical Characteristics (Ta = 25°C)

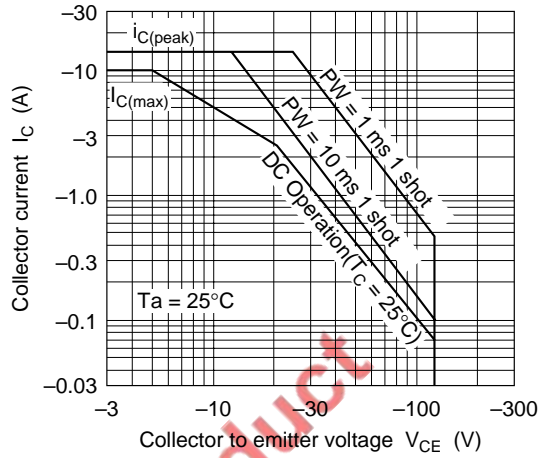
| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|----------------|------|-----|-------|---------------|---|
| Collector to emitter breakdown voltage | $V_{(BR)CEO}$ | -120 | — | — | V | $I_C = -25$ mA, $R_{BE} = \infty$ |
| Emitter to base breakdown voltage | $V_{(BR)EBO}$ | -7 | — | — | V | $I_E = -200$ mA, $I_C = 0$ |
| Collector cutoff current | I_{CBO} | — | — | -100 | μA | $V_{CB} = -120$ V, $I_E = 0$ |
| | I_{CEO} | — | — | -10 | μA | $V_{CE} = -100$ V, $R_{BE} = \infty$ |
| DC current transfer ratio | h_{FE} | 1000 | — | 20000 | | $V_{CE} = -3$ V, $I_C = -5$ A ^{*1} |
| Collector to emitter saturation voltage | $V_{CE(sat)1}$ | — | — | -1.5 | V | $I_C = -5$ A, $I_B = -10$ mA ^{*1} |
| | $V_{CE(sat)2}$ | — | — | -3.0 | V | $I_C = -10$ A, $I_B = -0.1$ A ^{*1} |
| Base to emitter saturation voltage | $V_{BE(sat)1}$ | — | — | -2.0 | V | $I_C = -5$ A, $I_B = -10$ mA ^{*1} |
| | $V_{BE(sat)2}$ | — | — | -3.5 | V | $I_C = -10$ A, $I_B = -0.1$ A ^{*1} |
| C to E diode forward voltage | V_D | — | — | 3.0 | V | $I_D = 10$ A ^{*1} |
| Turn on time | t_{on} | — | 0.8 | — | μs | $V_{CC} = -30$ V |
| Turn off time | t_{off} | — | 4.0 | — | μs | $I_C = -5$ A, $I_{B1} = -I_{B2} = -10$ mA |

Note: 1. Pulse test

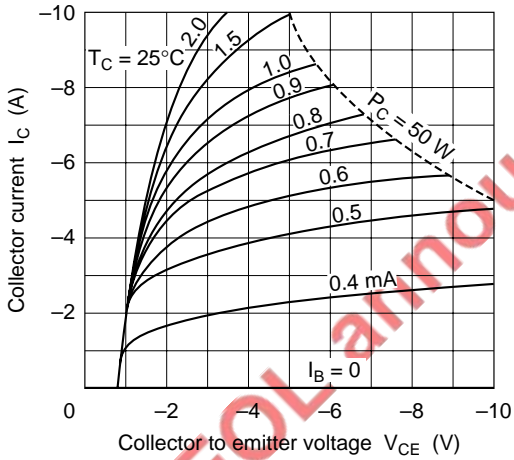
Maximum Collector Dissipation Curve



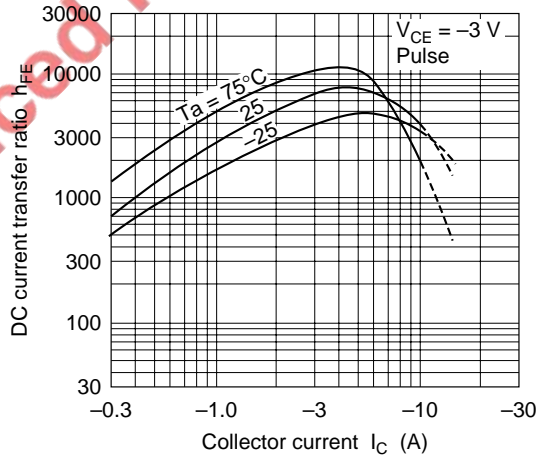
Area of Safe Operation

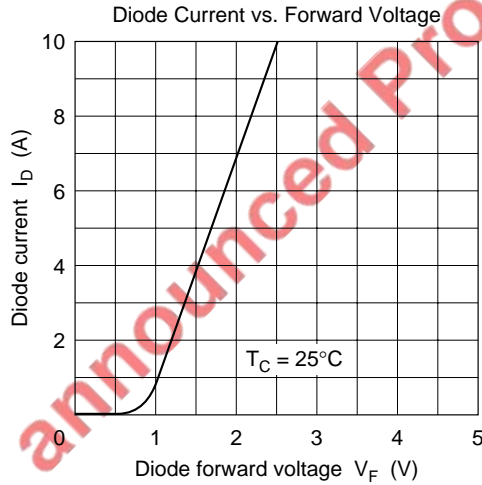
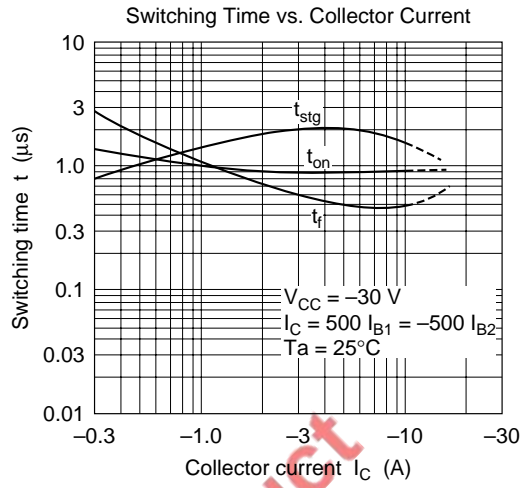
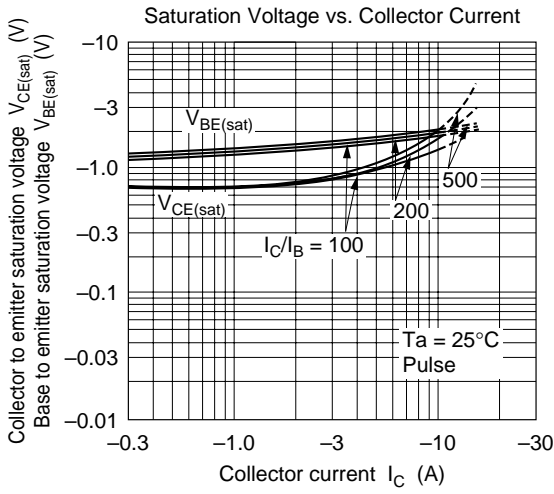


Typical Output Characteristics



DC Current Transfer Ratio vs. Collector Current





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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
Domacher 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