2SC5251

Silicon NPN Triple Diffused Planar

HITACHI

Preliminary

Application

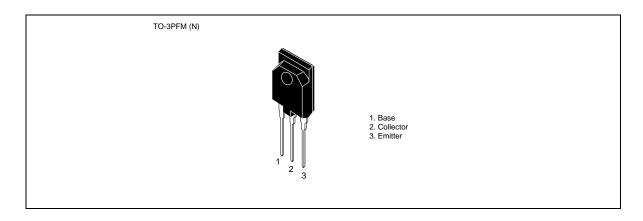
Character display horizontal deflection output

Features

- High breakdown voltage
 - $V_{\scriptscriptstyle CBO} = 1500~V$
- High speed switching
 - $t_f = 0.2 \mu sec (typ)$
- Isolated package

TO-3P•FM (N)

Outline



2SC5251

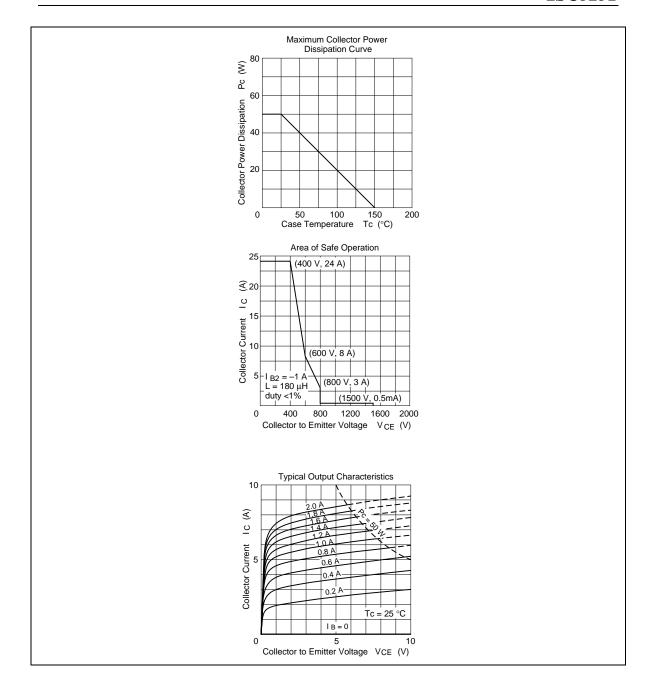
Absolute Maximum Ratings ($Ta = 25^{\circ}C$)

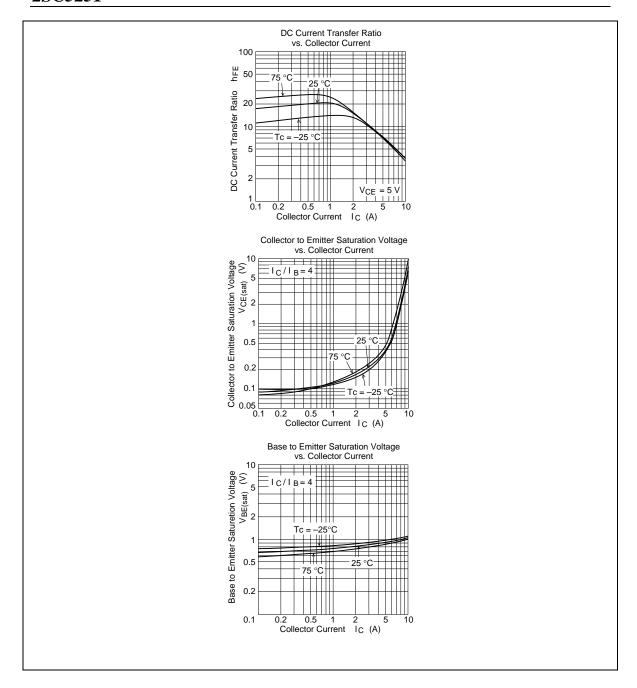
Item	Symbol	Ratings	Unit
Collector to base voltage	V _{CBO}	1500	V
Collector to emitter voltage	V _{CEO}	800	V
Emitter to base voltage	V _{EBO}	6	V
Collector current	I _c	12	A
Collector peak current	I _{C(peak)}	24	A
Collector power dissipation	P _c *1	50	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

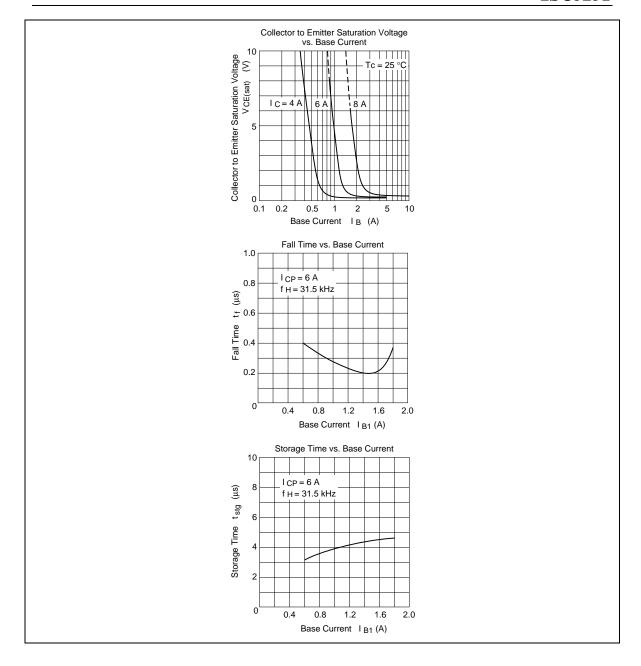
Note: 1. Value at $T_c = 25^{\circ}C$

Electrical Characteristics ($Ta = 25^{\circ}C$)

Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	800	_	_	V	$I_c = 10 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{\text{(BR)EBO}}$	6	_	_	V	$I_{\rm E} = 10$ mA, $I_{\rm C} = 0$
Collector cutoff current	I _{CES}	_	_	500	μΑ	$V_{CE} = 1500 \text{ V}, R_{BE} = 0$
DC current transfer ratio	h _{FE1}	8	_	35		$V_{CE} = 5 \text{ V}, I_{C} = 1 \text{ A}$
DC current transfer ratio	$h_{{\scriptscriptstyle FE2}}$	5	_	9		$V_{ce} = 5 \text{ V}, I_{c} = 5 \text{ A}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	_	_	5	V	I _C = 7 A, I _B = 1.8 A
Base to emitter saturation voltage	$V_{\scriptscriptstyle{BE(sat)}}$	_	_	1.5	V	$I_{c} = 7 \text{ A}, I_{B} = 1.8 \text{ A}$
Fall time	t _f	_	0.2	0.4	µsec	$I_{CP} = 6 \text{ A}, I_{B1} = 1.5 \text{ A},$ $f_{H} = 31.5 \text{ kHz}$







When using this document, keep the following in mind:

- 1. This document may, wholly or partially, be subject to change without notice.
- 2. All rights are reserved: No one is permitted to reproduce or duplicate, in any form, the whole or part of this document without Hitachi's permission.
- Hitachi will not be held responsible for any damage to the user that may result from accidents or any other reasons during operation of the user's unit according to this document.
- 4. Circuitry and other examples described herein are meant merely to indicate the characteristics and performance of Hitachi's semiconductor products. Hitachi assumes no responsibility for any intellectual property claims or other problems that may result from applications based on the examples described herein.
- 5. No license is granted by implication or otherwise under any patents or other rights of any third party or Hitachi, Ltd.
- 6. MEDICAL APPLICATIONS: Hitachi's products are not authorized for use in MEDICAL APPLICATIONS without the written consent of the appropriate officer of Hitachi's sales company. Such use includes, but is not limited to, use in life support systems. Buyers of Hitachi's products are requested to notify the relevant Hitachi sales offices when planning to use the products in MEDICAL APPLICATIONS.

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: 27336071