

2SD2256

Silicon NPN Triple Diffused

HITACHI

ADE-208-928 (Z)

1st. Edition

Sep. 2000

Application

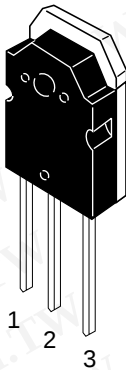
Low frequency power amplifier complementary pair with 2SB1494

Features

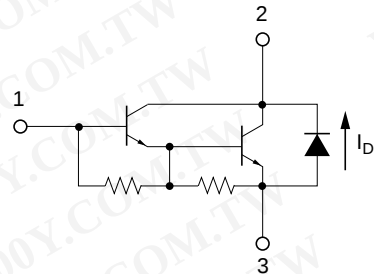
- High breakdown voltage and high current ($V_{CEO} = 120\text{ V}$, $I_C = 25\text{ A}$)
- Built-in C-E diode

Outline

TO-3P



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



勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

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

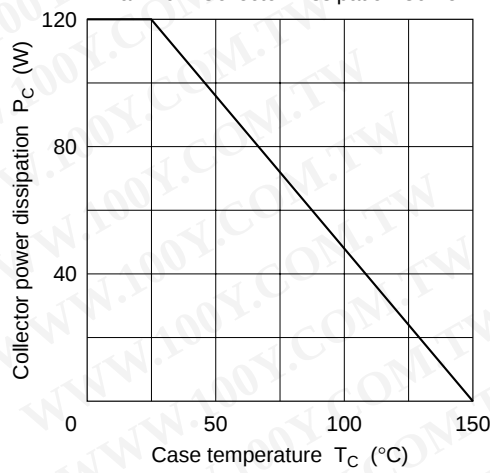
Note: 1. Value at $T_C = 25^{\circ}C$.

Electrical Characteristics (Ta = 25°C)

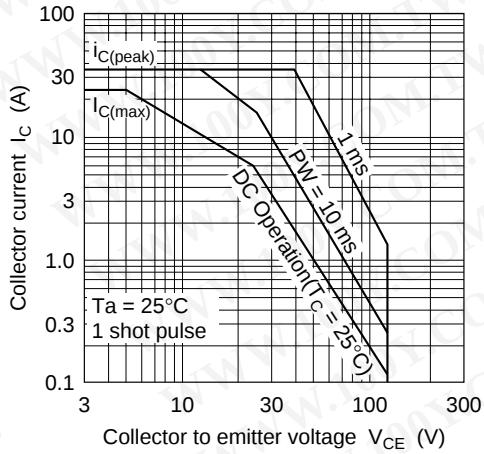
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	120	—	—	V	$I_C = 0.1\text{ mA}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	120	—	—	V	$I_C = 25\text{ mA}$, $R_{BE} = \infty$
Collector to emitter sustain voltage	$V_{CEO(sus)}$	120	—	—	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	μA	$V_{CE} = 100\text{ V}$, $R_{BE} = \infty$
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	V	$I_C = 25\text{ A}$, $I_B = 250\text{ mA}^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)1}$	—	—	3.0	V	$I_C = 12\text{ A}$, $I_B = 24\text{ mA}^{*1}$
	$V_{BE(sat)2}$	—	—	4.5	V	$I_C = 25\text{ A}$, $I_B = 250\text{ mA}^{*1}$

Note: 1. Pulse test.

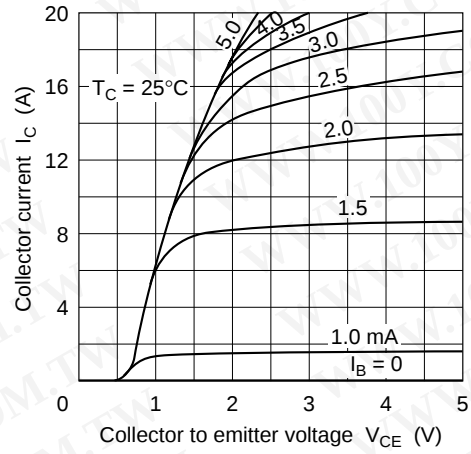
Maximum Collector Dissipation Curve



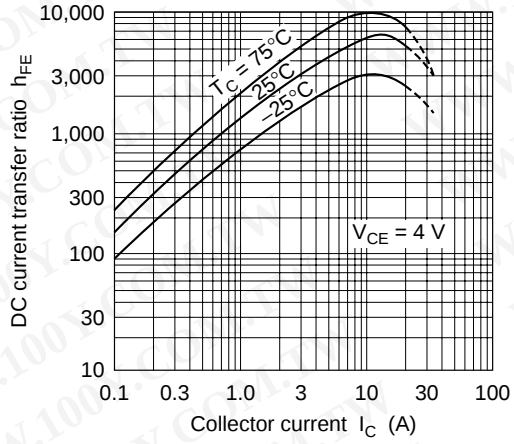
Area of Safe Operation

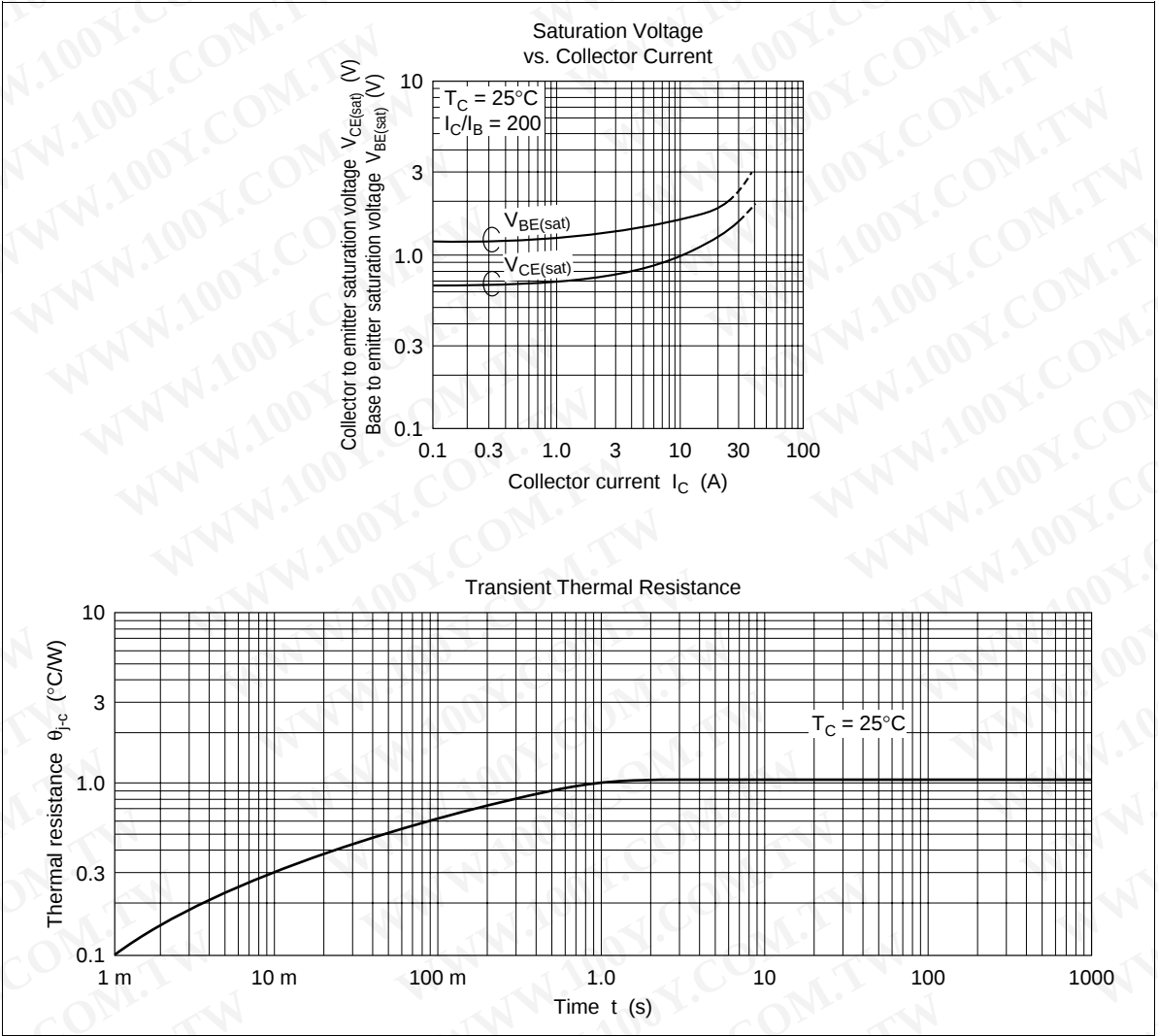


Typical Output Characteristics

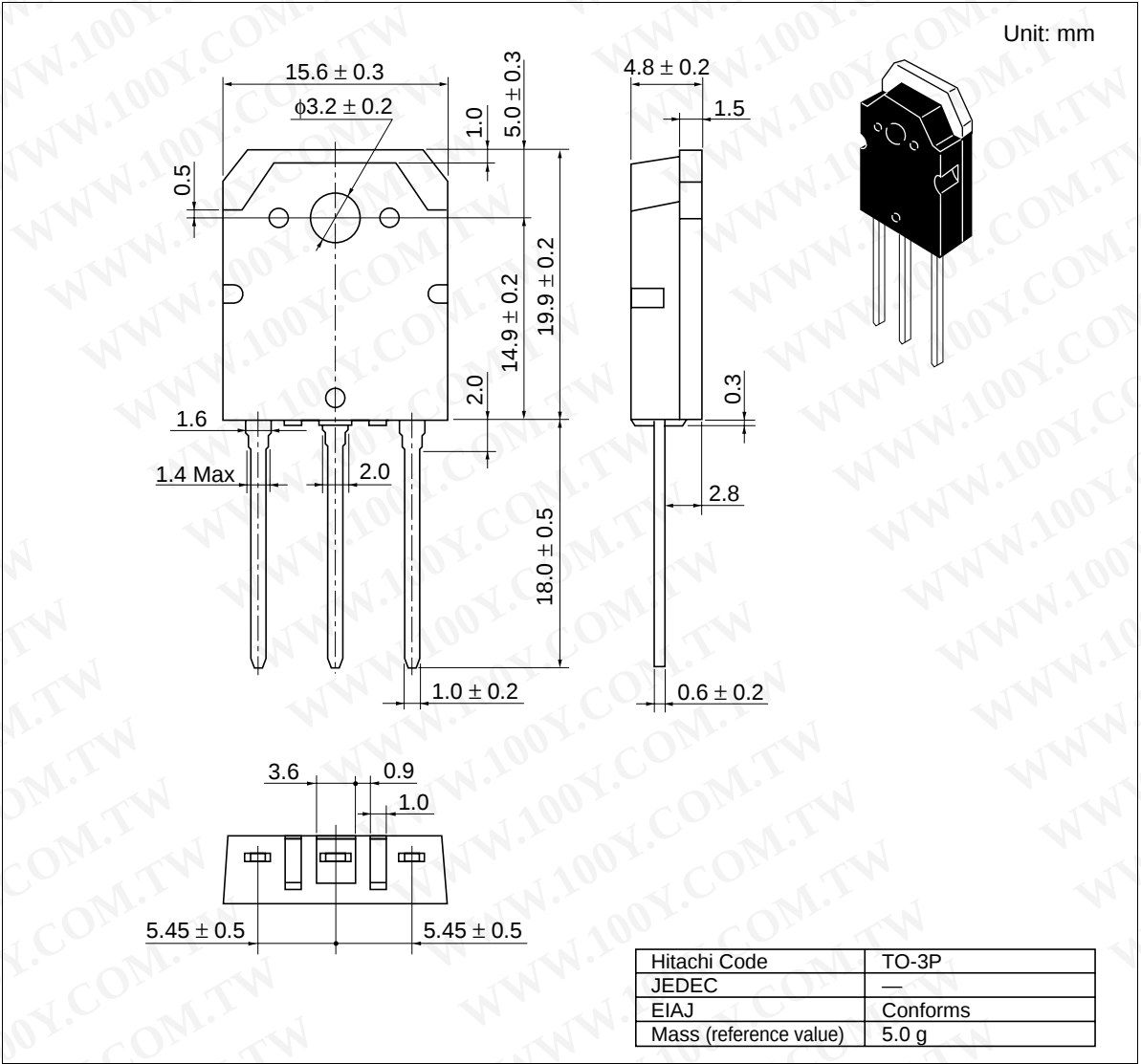


DC Current Transfer Ratio vs. Collector Current





Package Dimensions



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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

URL	North America	: http://semiconductor.hitachi.com/
	Europe	: http://www.hitachi-eu.com/hel/ecg
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For further information write to:

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) 585160

Hitachi Asia Ltd.
Hitachi Tower
16 Collyer Quay #20-00,
Singapore 049318
Tel: <65>-538-6533/538-8577
Fax: <65>-538-6933/538-3877
URL: <http://www.hitachi.com.sg>

Hitachi Asia Ltd.
(Taipei Branch Office)
4/F, No. 167, Tun Hwa North Road,
Hung-Kuo Building,
Taipei (105), Taiwan
Tel: <886>-(2)-2718-3666
Fax: <886>-(2)-2718-8180
Telex: 23222 HAS-TP
URL: <http://www.hitachi.com.tw>

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
URL: <http://www.hitachi.com.hk>

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