

2SB861

Silicon PNP Triple Diffused

HITACHI

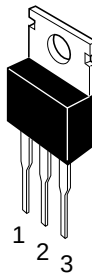
ADE-208-862 (Z)
1st. Edition
Sep. 2000

Application

Low frequency power amplifier color TV vertical deflection output complementary pair with 2SD1138

Outline

TO-220AB



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

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

Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-200	V
Collector to emitter voltage	V_{CEO}	-150	V
Emitter to base voltage	V_{EBO}	-6	V
Collector current	I_{C}	-2	A
Collector peak current	$I_{\text{C(peak)}}$	-5	A
Collector power dissipation	P_{C}	1.8	W
	P_{C}^{*1}	30	W
Junction temperature	T_{j}	150	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-45 to +150	$^{\circ}\text{C}$

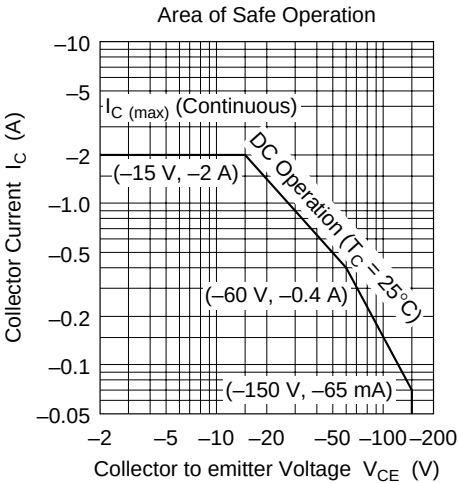
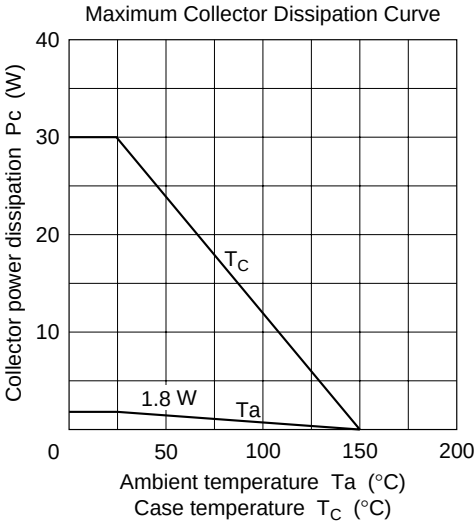
Note: 1. Value at $T_{\text{C}} = 25^{\circ}\text{C}$

Electrical Characteristics (Ta = 25°C)

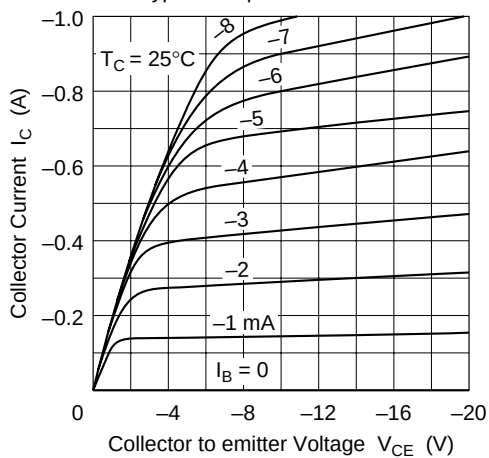
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CBO}$	-150	—	—	V	$I_C = -50\text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-6	—	—	V	$I_E = -5\text{ mA}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-1	μA	$V_{CB} = -120\text{ V}$, $I_E = 0$
DC current transfer ratio	h_{FE1}^{*1}	60	—	200		$V_{CE} = -4\text{ V}$, $I_C = -50\text{ mA}$
	h_{FE2}	60	—	—		$V_{CE} = -10\text{ V}$, $I_C = -500\text{ mA}^{*2}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-3	V	$I_C = -500\text{ mA}$, $I_B = -50\text{ mA}$
Base to emitter voltage	V_{BE}	—	—	-1	V	$V_{CE} = -4\text{ V}$, $I_C = -50\text{ mA}$
Collector output capacitance	C_{ob}	—	30	—	pF	$V_{CB} = -100\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$

Notes: 1. The 2SB861 is grouped by h_{FE1} as follows.
2. Pulse test

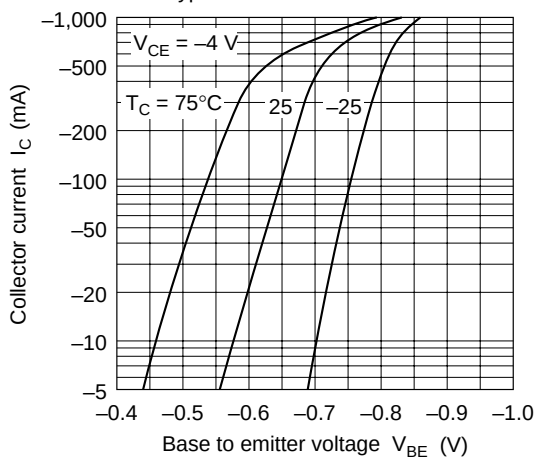
B	C
60 to 120	100 to 200



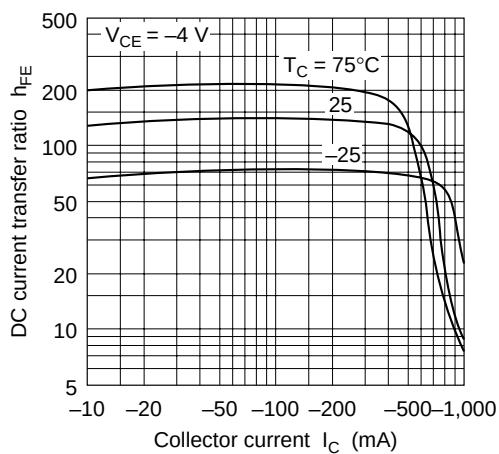
Typical Output Characteristics



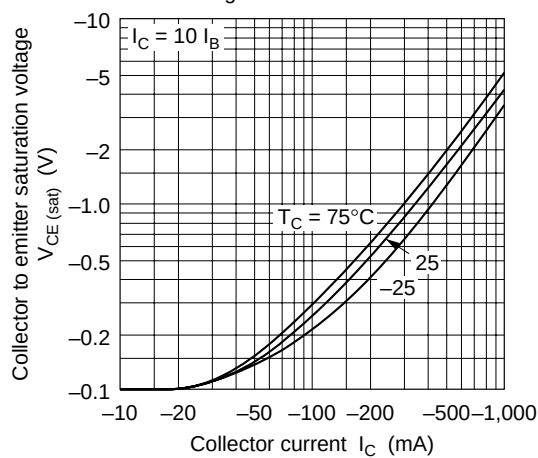
Typical Transfer Characteristics



DC Current Transfer Ratio vs. Collector Current

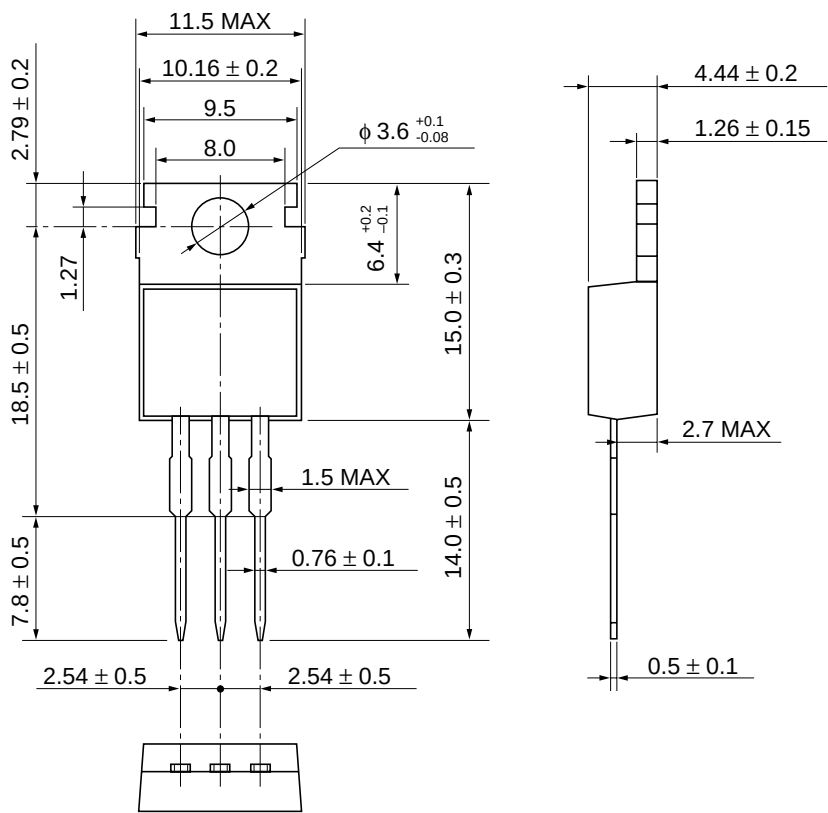


Collector to Emitter Saturation Voltage vs. Collector Current



Package Dimensions

Unit: mm



Hitachi Code	TO-220AB
JEDEC	Conforms
EIAJ	Conforms
Mass (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:

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

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