2SC1162

Silicon NPN Epitaxial

HITACHI

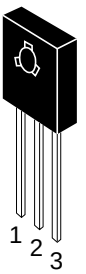
ADE-208-880 (Z)
1st. Edition
Sep. 2000

Application

Low frequency power amplifier complementary pair with 2SA715

Outline

TO-126 MOD



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	35	V
Collector to emitter voltage	V_{CEO}	35	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	2.5	A
Collector peak current	$I_{C(peak)}$	3	A
Collector power dissipation	P_C	0.75	W
	P_C*[1]	10	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Note: 1. Value at T_C = 25°C.

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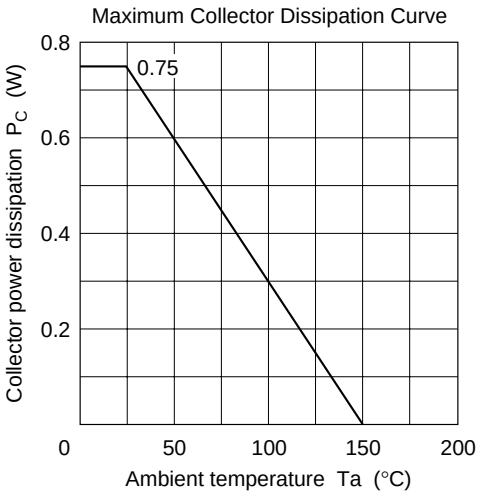
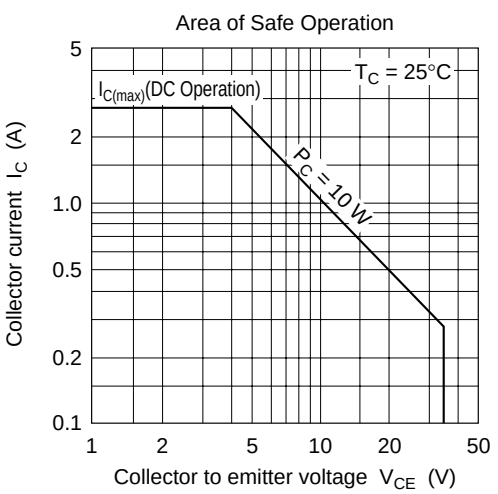
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	35	—	—	V	I_C = 1 mA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	35	—	—	V	I_C = 10 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	I_E = 1 mA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	20	µA	V_{CB} = 35 V, I_E = 0
DC current transfer ratio	h_{FE}*[1]	60	—	320		V_{CE} = 2 V, I_C = 0.5 A
	h_{FE}	20	—	—		V_{CE} = 2 V, I_C = 1.5 A (pulse test)
Base to emitter voltage	V_{BE}	—	0.93	1.5	V	V_{CE} = 2 V, I_C = 1.5 A (pulse test)
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	0.5	1.0	V	I_C = 2 A, I_B = 0.2 A (pulse test)
Gain bandwidth product	f_T	—	180	—	MHz	V_{CE} = 2 V, I_C = 0.2 A

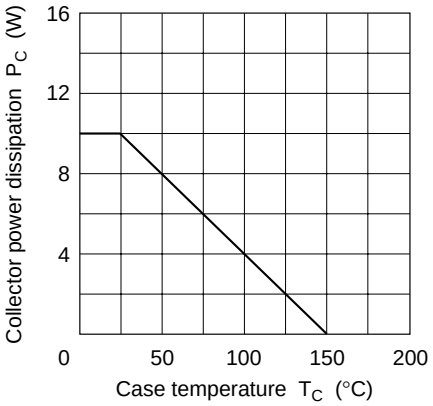
Note: 1. The 2SC1162 is grouped by h_{FE} as follows.

B	C	D
60 to 120	100 to 200	160 to 320

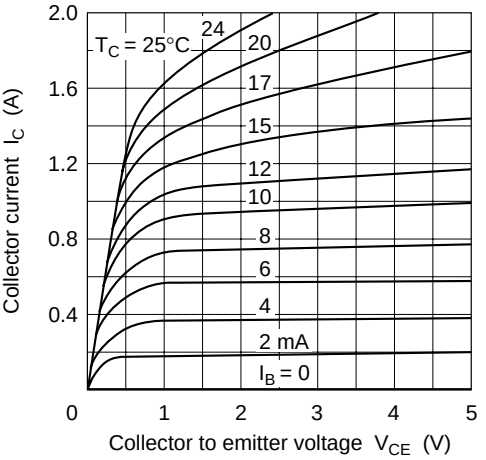




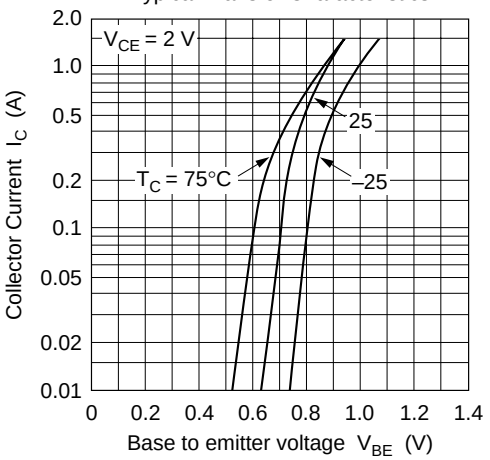
Maximum Collector Dissipation Curve



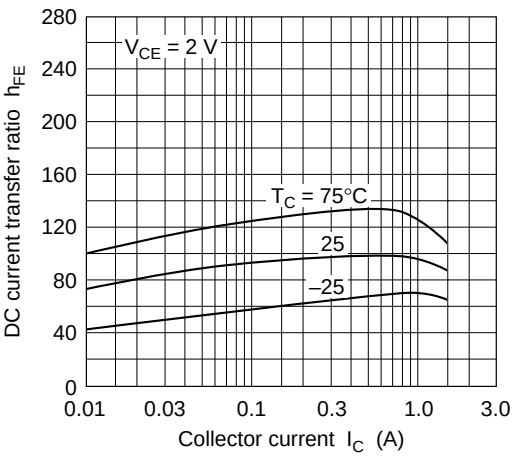
Typical Output Characteristics



Typical Transfer Characteristics

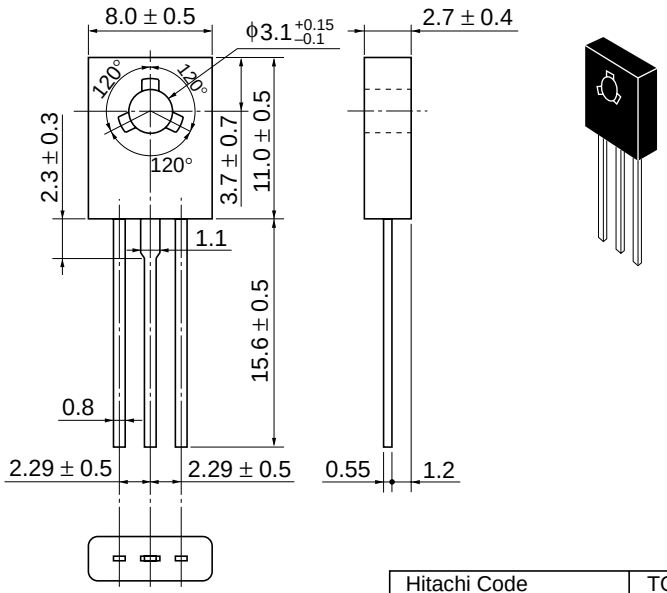


DC Current Transfer Ratio vs. Collector Current



Package Dimensions

Unit: mm



Hitachi Code	TO-126 Mod
JEDEC	—
EIAJ	—
Mass (reference value)	0.67 g

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HITACHI

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
NorthAmerica : 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 Straβe 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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