

# 2SD655

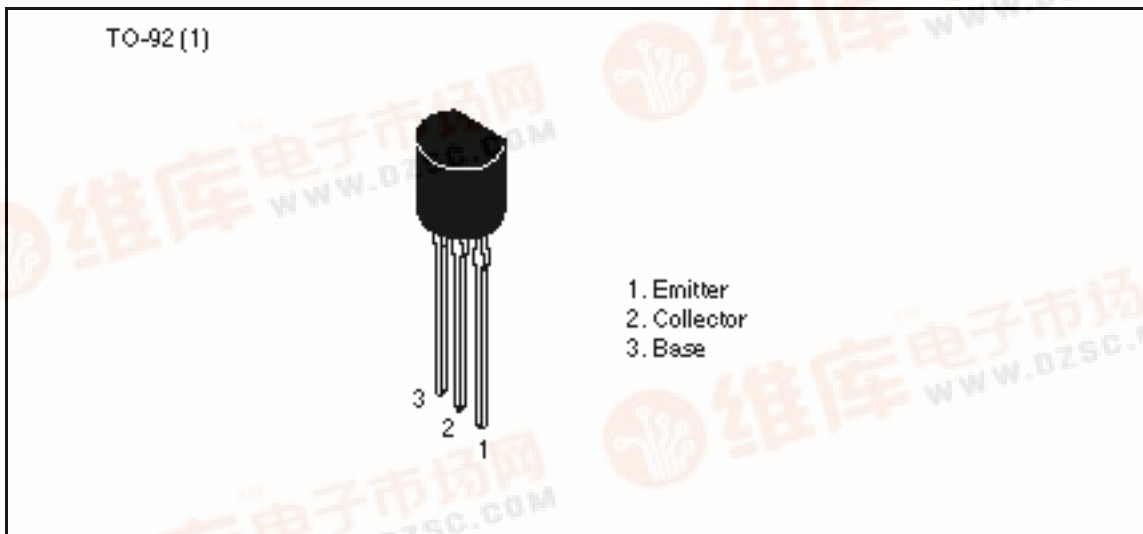
Silicon NPN Epitaxial

# HITACHI

## Application

Low frequency power amplifier, Muting

## Outline



## Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	30	V
Collector to emitter voltage	$V_{CEO}$	15	V
Emitter to base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	0.7	A
Collector peak current	$i_{C(peak)}$	1.0	A
Collector power dissipation	$P_C$	500	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

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## 2SD655

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### Electrical Characteristics (Ta = 25°C)

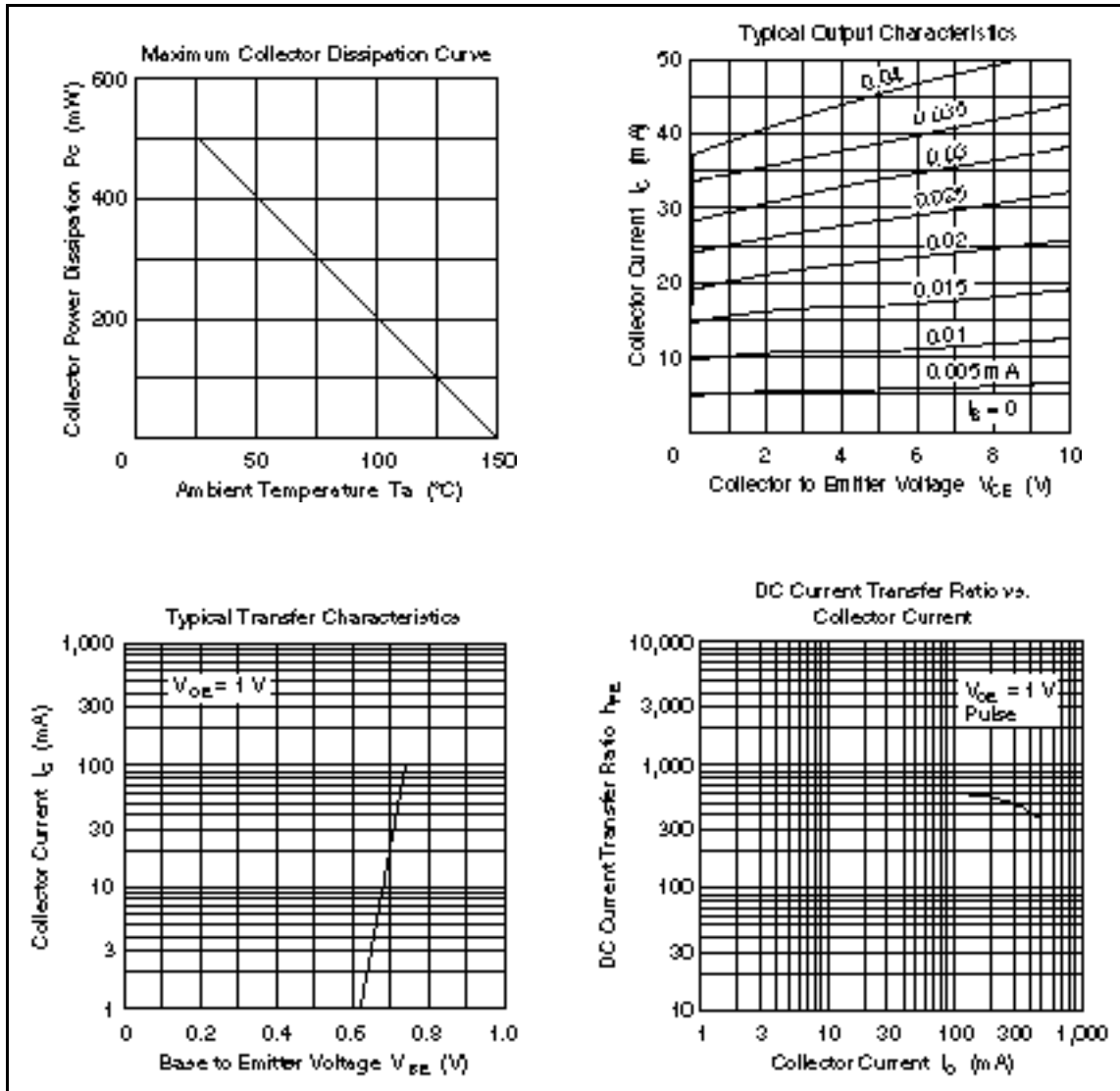
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	30	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	15	—	—	V	$I_C = 1 \text{ mA}, R_{BE} =$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	1.0	$\mu A$	$V_{CB} = 20 \text{ V}, I_E = 0$
Base to emitter voltage	$V_{BE}$	—	—	1.0	V	$V_{CE} = 1 \text{ V}, I_C = 150 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	0.15	0.5	V	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}^{*2}$
DC current transfer ratio	$h_{FE}^{*1}$	250	—	1200		$V_{CE} = 1 \text{ V}, I_C = 150 \text{ mA}^{*2}$
Gain bandwidth product	$f_T$	—	250	—	MHz	$V_{CE} = 1 \text{ V}, I_C = 150 \text{ mA}$

Notes: 1. The 2SD655 is grouped by  $h_{FE}$  as follows.

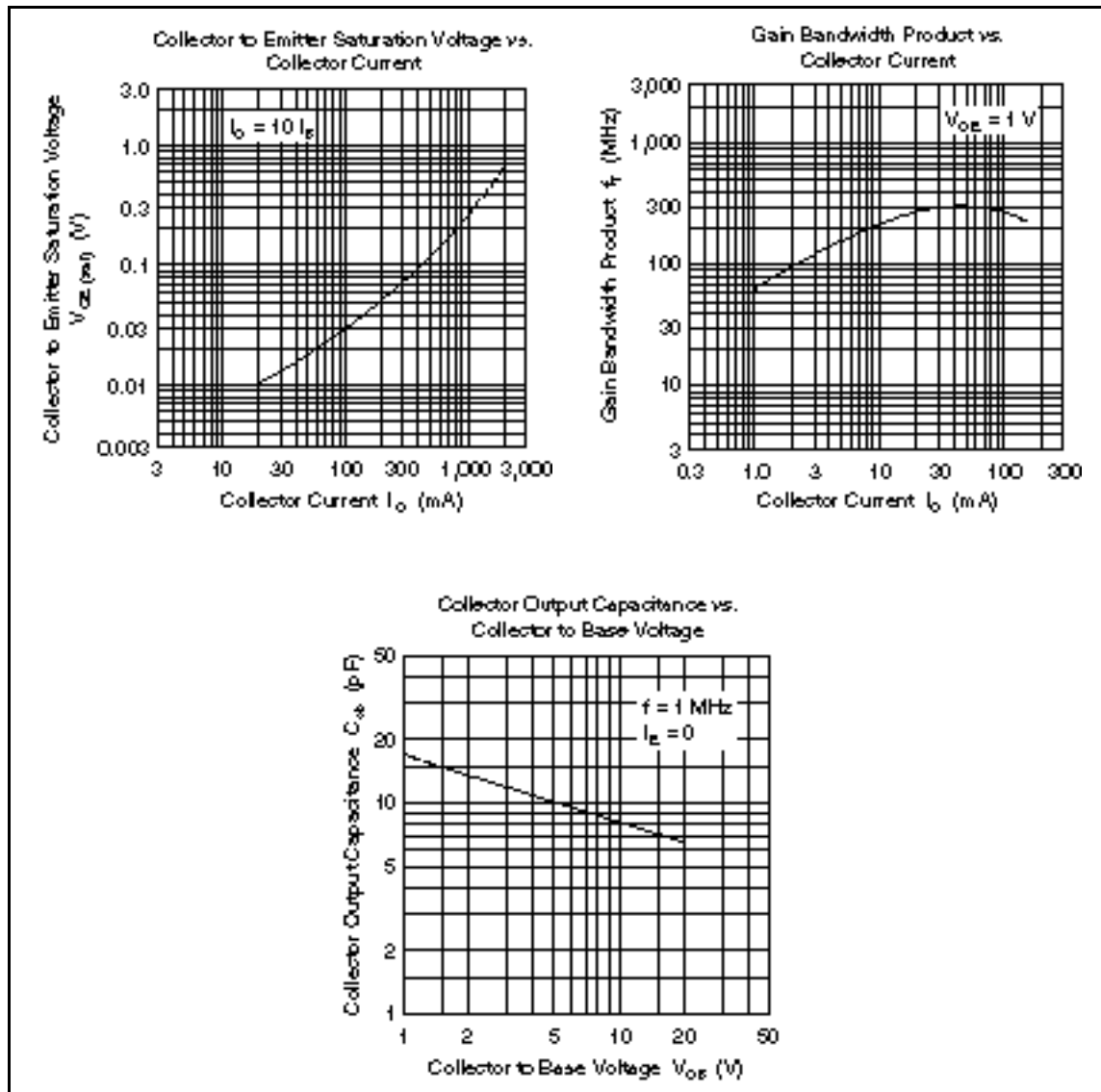
2. Pulse test

D	E	F
250 to 500	400 to 800	600 to 1200

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## 2SD655



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# HITACHI

## **Hitachi, Ltd.**

Semiconductor & IC Div.

Nippon Bldg., 2-6-2, Ohite-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

Brabens, CA. 94005-4835

U.S.A.

Tel 415-589-8300

Fax 415-589-4207

**Hitachi Europe GmbH**

Electronic Components Group

Continental Europe

Darnecker Straße 3

D-85522 Feldkirchen

München

Tel 089-9 24 80-0

Fax 089-9 29 30 00

**Hitachi Europe Ltd.**

Electronic Components Div.

Northern Europe Headquarters

Whitbrook Park

Lower Cookham Road

Maidenhead

Berkshire SL6 6YA

United Kingdom

Tel 0628-585000

Fax 0628-778322

**Hitachi Asia Pte. Ltd.**

45 Collyer Quay #20-00

Hitachi Tower

Singapore 0104

Tel 535-2100

Fax 535-1533

**Hitachi Asia (Hong Kong) Ltd.**

Unit 705, North Tower,

World Finance Centre

Harbour City, Canton Road

Tsim Sha Tsui, Kowloon

Hong Kong

Tel 27359218

Fax 27308074