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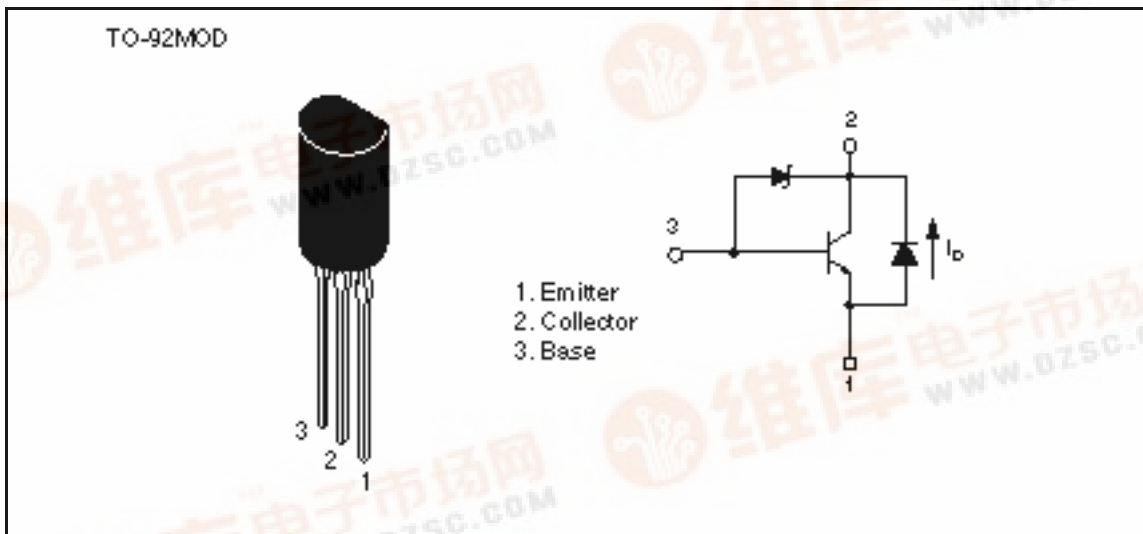
Silicon NPN Epitaxial

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Application

Low frequency power amplifier

Outline



Absolute Maximum Ratings (Ta = 25°C)

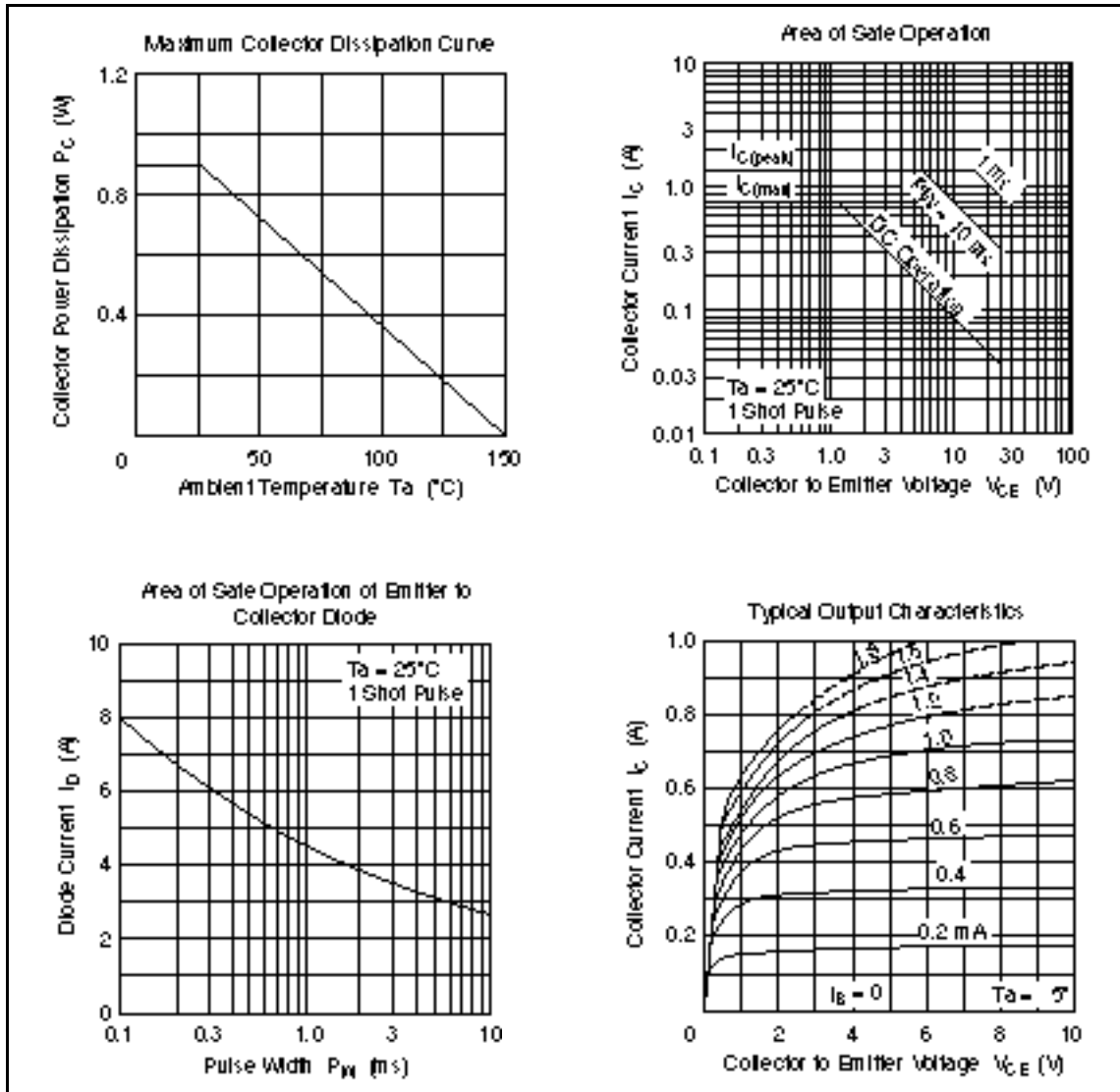
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	25	V
Collector to emitter voltage	V_{CEO}	25	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_C	0.8	A
Collector peak current	$i_{c (peak)}$	1.5	A
E to C diode forward current	I_D	0.8	A
Collector power dissipation	P_C	0.9	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

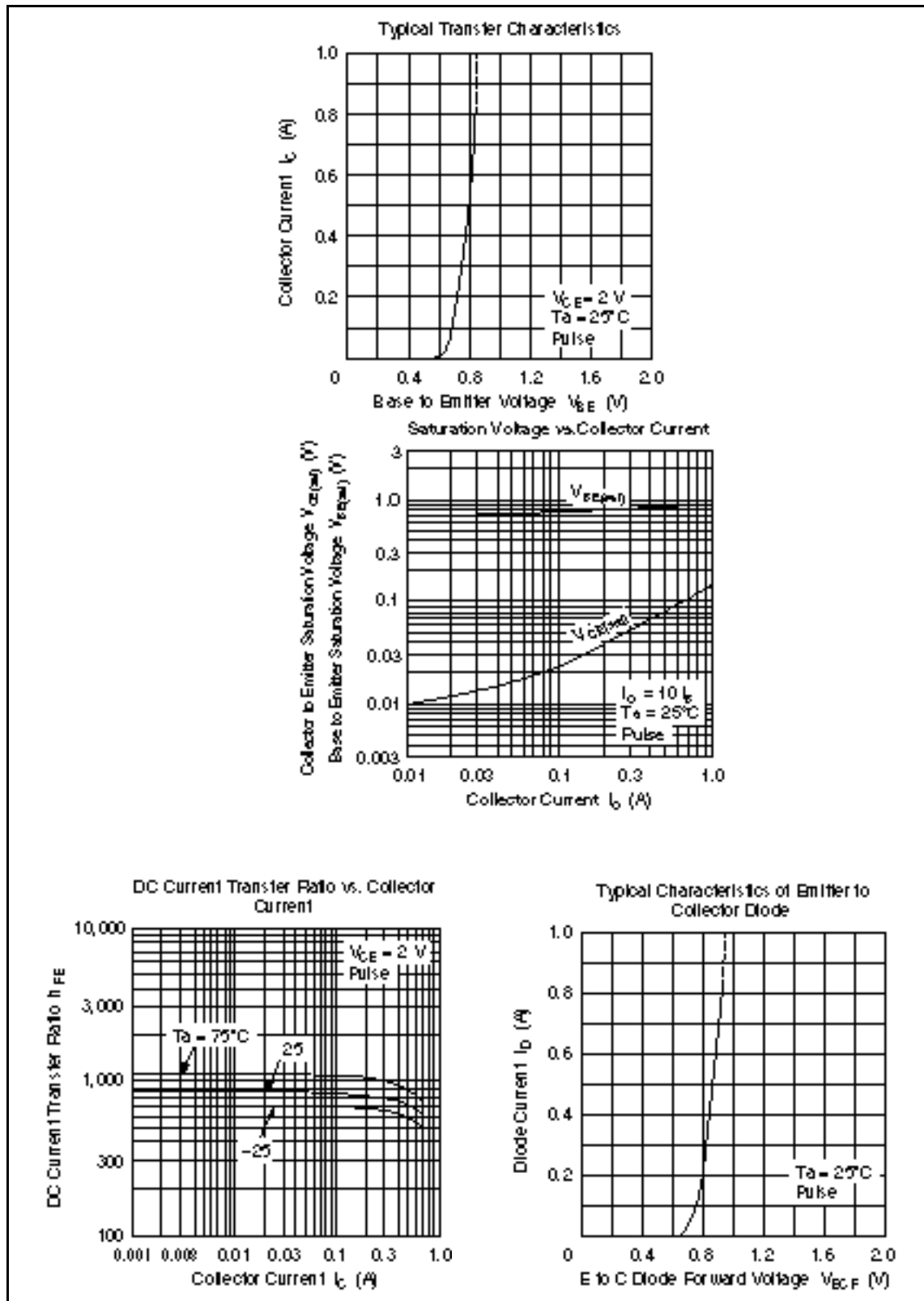
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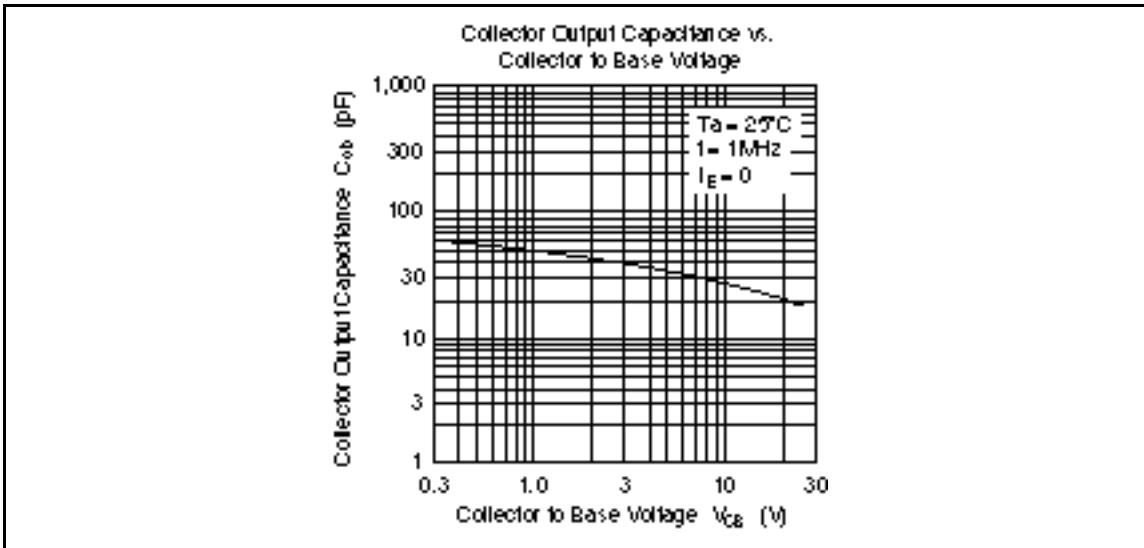
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	25	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	25	—	35	V	$I_C = 1 \text{ mA}, R_{BE} =$
Collector to emitter sustaining voltage	$V_{CEO(sus)}$	25	—	35	V	$I_C = 0.8 \text{ A}, R_{BE} =$, $L = 20 \text{ mH}$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	0.2	μA	$V_{CB} = 20 \text{ V}, I_E = 0$
	I_{CEO}	—	—	0.5	μA	$V_{CE} = 20 \text{ V}, R_{BE} =$
Emitter cutoff current	I_{EBO}	—	—	0.2	μA	$V_{EB} = 5 \text{ V}, I_C = 0$
DC current transfer ratio	h_{FE}	250	—	1200		$V_{CE} = 2 \text{ V}, I_C = 0.1 \text{ A}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.3	V	$I_C = 0.8 \text{ A}, I_B = 80 \text{ mA}^{*1}$
E to C diode forward voltage	V_D	—	—	1.1	V	$I_D = 0.8 \text{ A}^{*1}$

Note: 1. Pulse test







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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

Willisbrook Park

Lower Cookham Road

Maidenhead

Berkshire SL6 6YU

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 27389218

Fax 27308074