
2SA1960

Silicon NPN Epitaxial

HITACHI

ADE-208-392
1st. Edition

Application

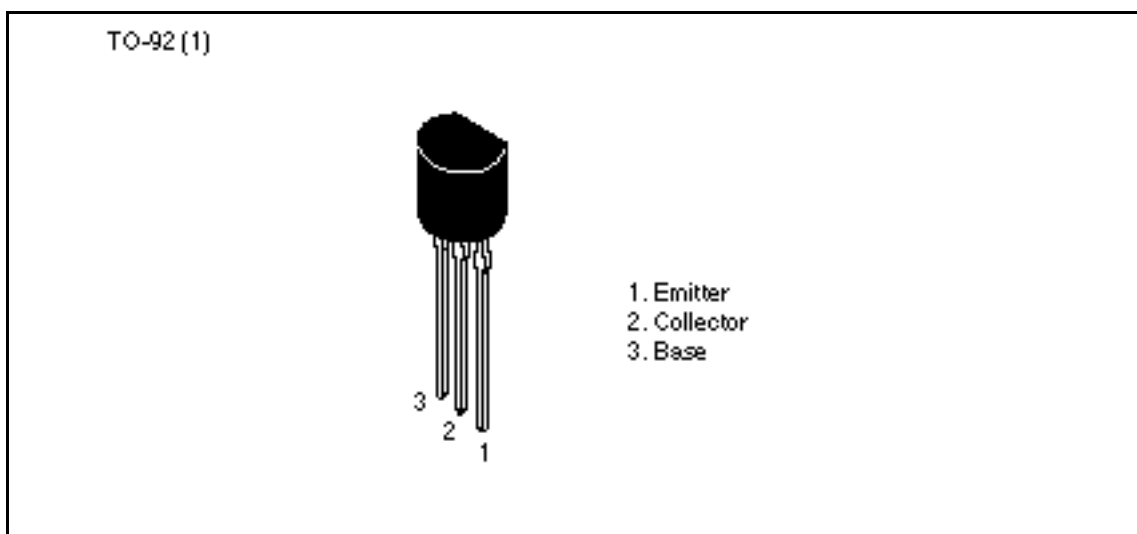
- Wide band video output amplifier for color CRT monitor.
- High frequency high voltage amplifier.
- High speed power switching.
- Complementary pair with 2SC5225.

Features

- High voltage large current operation.
 $V_{CEO} = -80 \text{ V}$, $I_C = -300 \text{ mA}$
- High f_T .
 $f_T = 1.3 \text{ GHz}$
- Small output capacitance.
 $C_{ob} = 2.9 \text{ pF}$

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Outline

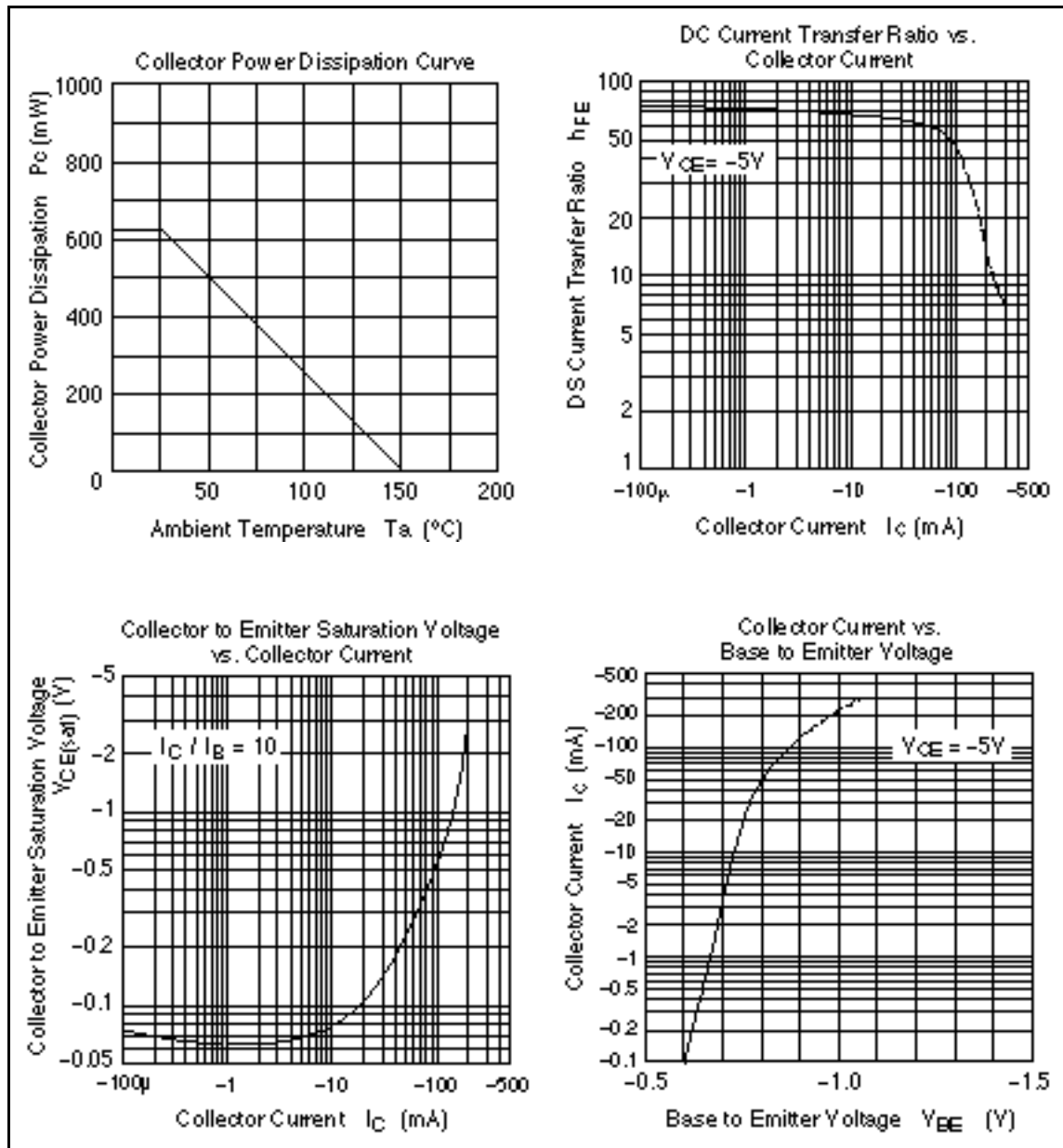


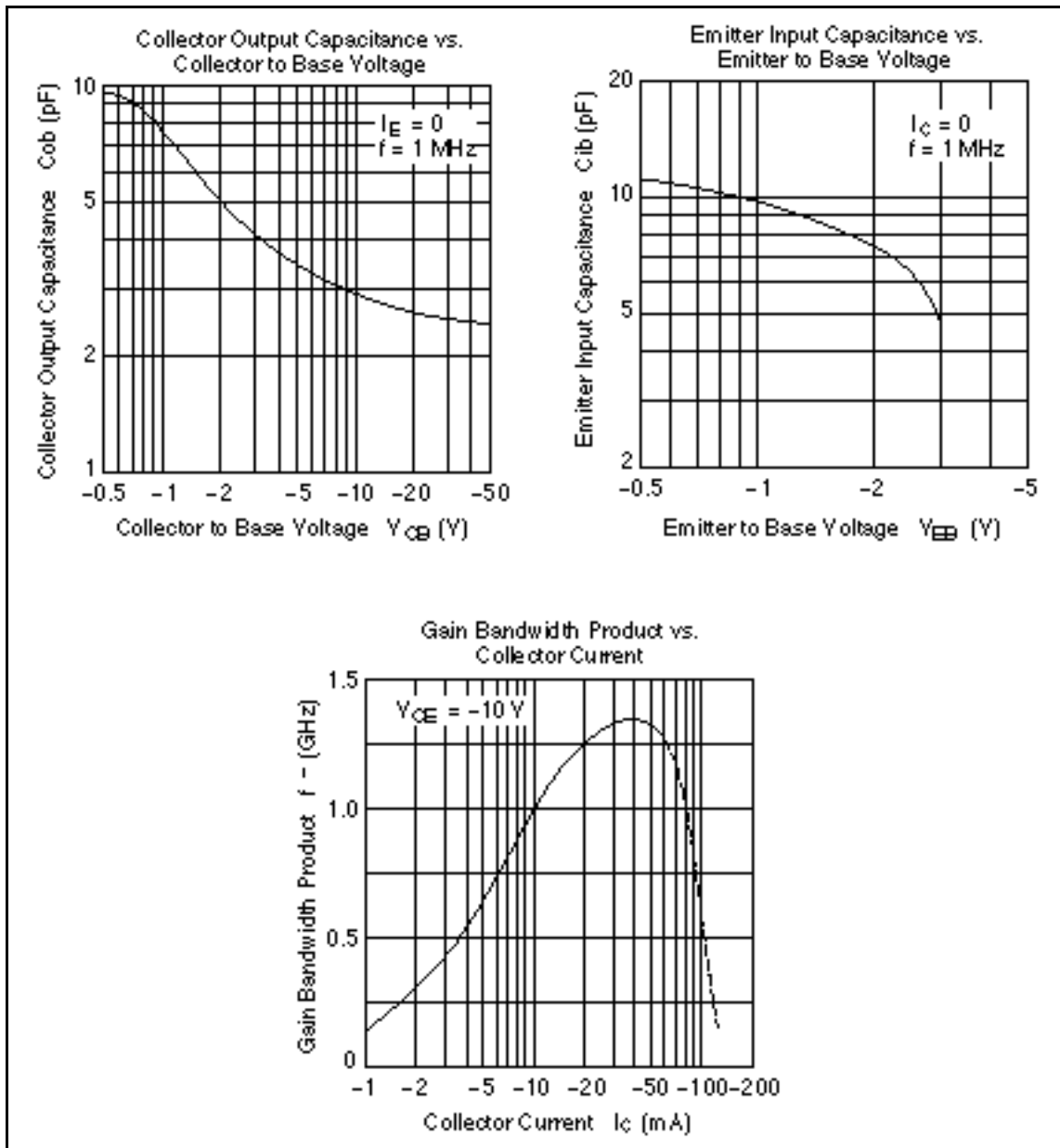
Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-80	V
Collector to emitter voltage	V_{CEO}	-80	V
Emitter to base voltage	V_{EBO}	-3	V
Collector current	I_C	-300	mA
Collector power dissipation	P_C	625	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-80	—	—	V	$I_C = -100 \mu A$ $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-80	—	—	V	$I_C = -1 \text{ mA}$ $R_{BE} =$
Collector to base cutoff current	I_{CBO}	—	—	-1.0	μA	$V_{CB} = -60 \text{ V}$ $I_E = 0$
Emitter to base cutoff current	I_{EBO}	—	—	-10	μA	$V_{EB} = -3 \text{ V}$ $I_C = 0$
DC current transfer ratio	h_{FE}	20	60	—		$V_{CE} = -5 \text{ V}$, $I_C = -50 \text{ mA}$ Pulse test
Gain bandwidth product	f_T	1.1	1.3	—	GHz	$V_{CE} = -10 \text{ V}$ $I_C = -50 \text{ mA}$
Emitter input capacitance	C_{ib}	—	14.5	18	pF	$V_{EB} = 0$, $I_C = 0$ $f = 1 \text{ MHz}$
Collector output capacitance	C_{ob}	—	2.9	4.0	pF	$V_{CB} = -10 \text{ V}$, $I_E = 0$ $f = 1 \text{ MHz}$





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HITACHI

Hitachi, Ltd.

Semiconductor & IC Div.

Nippon Bldg., 2-5-2, Ohta-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
Brisbane, CA 94005-4835
U.S.A.
Tel: 415-589-8000
Fax: 415-589-4207

Hitachi Europe GmbH
Electronic Components Group
Continental Europe
Dornacher Straße 3
D-85622 Feldkirchen
München
Tel: 089-9 94 80-0
Fax: 089-9 29 30 00

Hitachi Europe Ltd.
Electronic Components Div.
Northern Europe Headquarters
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA
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