
2SA893, 2SA893A

Silicon PNP Epitaxial

HITACHI

Application

- Σ Low frequency high voltage amplifier
- Σ Complementary pair with 2SC1890/A

Outline

TO-92 (1)



- 1. Emitter
- 2. Collector
- 3. Base

2SA893, 2SA893A

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	2SA893	2SA893A	Unit
Collector to base voltage	V_{CBO}	-90	-120	V
Collector to emitter voltage	V_{CEO}	-90	-120	V
Emitter to base voltage	V_{EBO}	-5	-5	V
Collector current	I_C	-50	-50	mA
Collector power dissipation	P_C	300	300	mW
Junction temperature	T_j	150	150	°C
Storage temperature	T_{stg}	-55 to +150	-55 to +150	°C

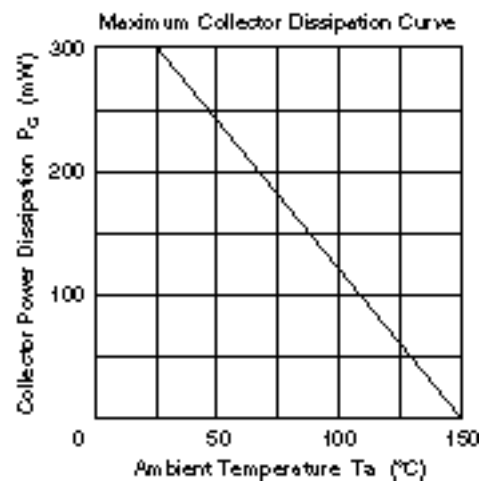
Electrical Characteristics (Ta = 25°C)

Item	Symbol	2SA893			2SA893A			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max		
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-90	—	—	-120	—	—	V	$I_C = -1 \text{ mA}$, $R_{BE} = \bullet$
Collector cutoff current	I_{CBO}	—	—	-0.5	—	—	—	μA	$V_{CB} = -75 \text{ V}$, $I_E = 0$
		—	—	—	—	—	-0.5	μA	$V_{CB} = -100 \text{ V}$, $I_E = 0$
DC current transfer ratio	h_{FE}^{*1}	250	—	800	250	—	800		$V_{CE} = -12 \text{ V}$, $I_C = -2 \text{ mA}$
Base to emitter voltage	V_{BE}	—	—	-0.75	—	—	-0.75	V	$V_{CE} = -12 \text{ V}$, $I_C = -2 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.5	—	—	-0.5	V	$I_C = -10 \text{ mA}$, $I_B = -1 \text{ mA}$
Gain bandwidth product	f_T	—	120	—	—	120	—	MHz	$V_{CE} = -12 \text{ V}$, $I_C = -2 \text{ mA}$
Collector output capacitance	C_{ob}	—	1.8	—	—	1.8	—	pF	$V_{CB} = -25 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$
Noise figure	NF	—	2	10	—	2	10	dB	$V_{CE} = -6 \text{ V}$, $I_C = -50 \mu\text{A}$, $R_g = 50 \text{ kW}$, $f = 1 \text{ kHz}$

Note: 1. The 2SA893/A is grouped by h_{FE} as follows.

D	E
250 to 500	400 to 800

See characteristic curves of 2SA872 and 2SA872A



2SA893, 2SA893A

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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

Brisbane, CA 94005-4835

U.S.A.

Tel 415-589-8300

Fax 415-583-4207

Hitachi Europe GmbH

Electronic Components Group

Continental Europe

Dannebrogstrasse 3

D-85622 Feldkirchen

München

Tel 089-9 91 80-0

Fax 089-9 29 30 00

Hitachi Europe Ltd.

Electronic Components Div.

Northern Europe Headquarters

Whitebrook Park

Lower Cookham Road

High Wycombe

Berkshire SL6 8YA

United Kingdom

Tel 0628-885000

Fax 0628-778322

Hitachi Asia Pte. Ltd.

45 Collyer Quay #20-00

Hitachi Tower

Singapore 0404

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

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