2SA1194(K)

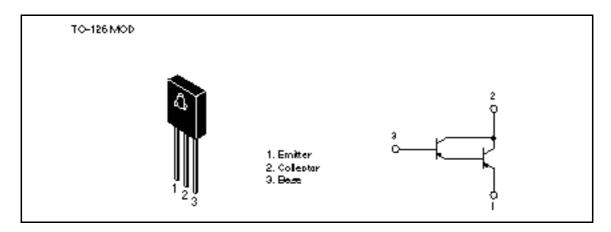
Silicon PNP Epitaxial

HITACHI

Application

High gain amplifier

Outline



Absolute Maximum Ratings ($Ta = 25^{\circ}C$)

Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-60	V
Collector to emitter voltage	V_{CEO}	-60	V
Emitter to base voltage	V_{EBO}	– 7	V
Collector current	I _c	-1	A
Collector peak current	I _{C(peak)}	-2	А
Collector power dissipation	P _c	1	W
	P _c *1	8	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

Note: 1. Value at $T_c = 25$ °C

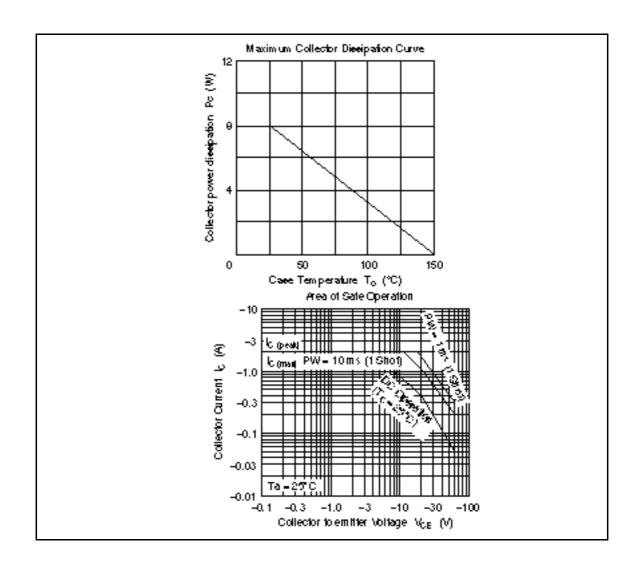


2SA1194(K)

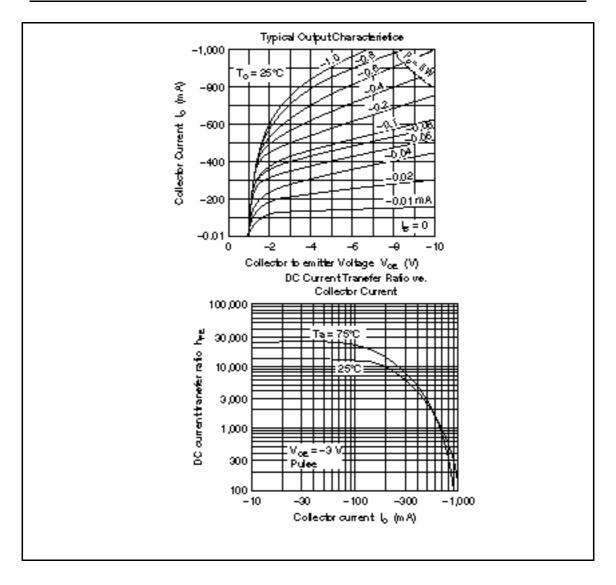
Electrical Characteristics (Ta = 25°C)

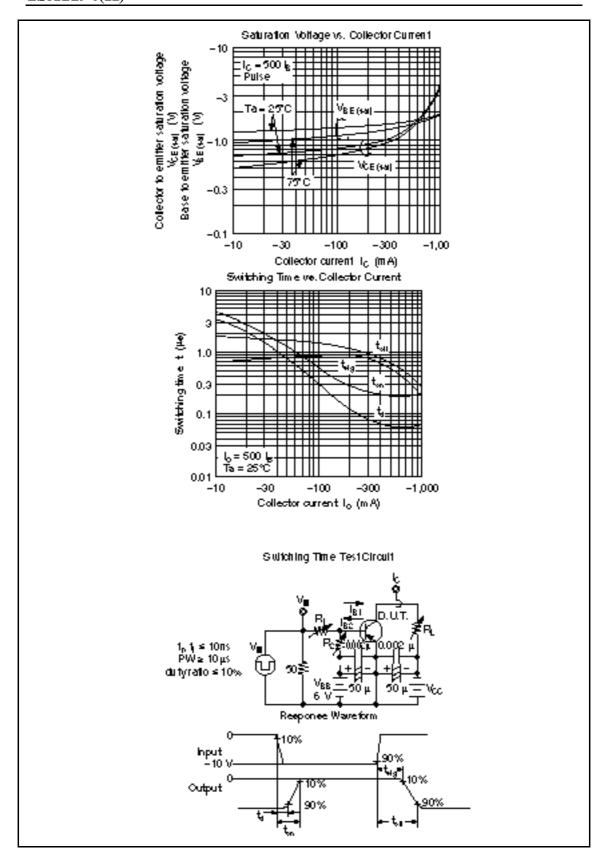
Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-60	_	_	V	$I_C = -1 \text{ mA}, R_{BE} =$
Collector cutoff current	I _{CBO}	_	_	-1.0	μΑ	$V_{CB} = -60 \text{ V}, I_{E} = 0$
Emitter cutoff current	I _{EBO}	_	_	-1.0	μΑ	$V_{EB} = -7 \text{ V}, I_{C} = 0$
DC current transfer ratio	h _{FE}	1000	_	_		$V_{CE} = -3 \text{ V}, I_{C} = -500 \text{ mA}^{*1}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	_	_	-2.0	V	$I_{\rm C} = -500 \text{ mA}, I_{\rm B} = -1 \text{ mA*}^{1}$
Base to emitter saturation voltage	$V_{BE(sat)}$	_	_	-2.0	V	
Turn on time	t _{on}	_	0.7	_	μs	$I_{\rm C} = -500 \text{ mA}$
Turn off time	t _{off}	_	8.0	_	μs	$I_{B1} = -I_{B2} = -1 \text{ mA}$

Note: 1. Pulse test



2SA1194(K)





When using this document, keep the following in mind:

- 1. This document may, wholly or partially, be subject to change without notice.
- 2. All rights are reserved: No one is permitted to reproduce or duplicate, in any form, the whole or part of this document without Hitachi's permission.
- 3. Hitachi will not be held responsible for any damage to the user that may result from accidents or any other reasons during operation of the user's unit according to this document.
- 4. Circuitry and other examples described herein are meant merely to indicate the characteristics and performance of Hitachi's semiconductor products. Hitachi assumes no responsibility for any intellectual property claims or other problems that may result from applications based on the examples described herein.
- 5. No license is granted by implication or otherwise under any patents or other rights of any third party or Hitachi, Ltd.
- 6. MEDICAL APPLICATIONS: Hitachi's products are not authorized for use in MEDICAL APPLICATIONS without the written consent of the appropriate officer of Hitachi's sales company. Such use includes, but is not limited to, use in life support systems. Buyers of Hitachi's products are requested to notify the relevant Hitachi sales offices when planning to use the products in MEDICAL APPLICATIONS.

HITACHI

Hitachi, Ltd.
Semiconductor & IC Div.
Nepon Bidg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokiyo 100, Japan Tet Tokiyo (03, 3270-2414
Fex: (03, 3270-5400

For further in formation write to:

Hitechi Americe, Lbd. Semiconductor & IC Div. 2000 Sierre Point Perkwey Briebene, CA. 94005-4835 U.S.A. Tex AUS 580 8800

Tet +15-589-8300 Fex: +15-583-4207 Hitechi Burope GmbH
Bedronic Componente Group
Cartinertal Burope
Darnecher Streße 3
D-85622 Feldkirchen
München
Tet 089-9 94 80-0
Fex: 089-9 29 30 00

Hitachi Burope Ltd.
Bedronic Componenta Dw.
Northern Burope Headquartera
Whitebrook Park
Lower Cook ham Road
Heidenhead
Barkshire SL68YA
Urited Kingdom
Tet 0628-858000
Fex: 0628-778322

Hitachi Asia Pta, Ltd 45 Collyer Quay \$20-00 Hitachi Tower Snappore 0404 Tet 535-2400 Fex: 535-4533

Hitachi Asia (Hong Kong) Ltd. Unit 705, North Towar, World Finance Centre, Herbour City, Centon Road Taim Sha Tau, Kowloon Hong Kong Tat 27:3592/8 Fax: 27:308074