
2SC3553

Silicon NPN Epitaxial

HITACHI

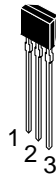
ADE-208-1090 (Z)
1st. Edition
Mar. 2001

Application

Low frequency amplifier

Outline

SPAK



1. Emitter
2. Collector
3. Base

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

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	35	V
Collector to emitter voltage	V_{CEO}	35	V
Emitter to base voltage	V_{EBO}	4	V
Collector current	I_{C}	500	mA
Collector power dissipation	P_{C}	300	mW
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

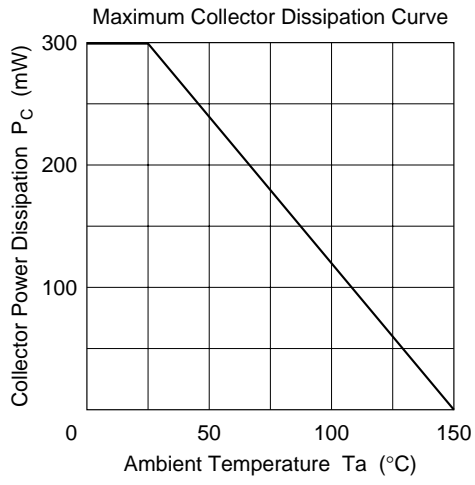
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	35	—	—	V	$I_{\text{C}} = 10 \mu\text{A}$, $I_{\text{E}} = 0$
Collector to emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	35	—	—	V	$I_{\text{C}} = 1 \text{ mA}$, $R_{\text{BE}} = \infty$
Emitter to base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	4	—	—	V	$I_{\text{E}} = 10 \mu\text{A}$, $I_{\text{C}} = 0$
Collector cutoff current	I_{CBO}	—	—	0.5	μA	$V_{\text{CB}} = 20 \text{ V}$, $I_{\text{E}} = 0$
DC current transfer ratio	h_{FE1}^{*1}	60	—	320		$V_{\text{CE}} = 3 \text{ V}$, $I_{\text{C}} = 10 \text{ mA}$
	h_{FE2}	10	—	—		$V_{\text{CE}} = 3 \text{ V}$, $I_{\text{C}} = 500 \text{ mA}^{*2}$
Collector to emitter saturation voltage	$V_{\text{CE}(\text{sat})}$	—	0.2	0.6	V	$I_{\text{C}} = 150 \text{ mA}$, $I_{\text{B}} = 15 \text{ mA}^{*2}$
Base to emitter voltage	V_{BE}	—	0.64	—	V	$V_{\text{CE}} = 3 \text{ V}$, $I_{\text{C}} = 10 \text{ mA}$

Notes: 1. The 2SC3553 is grouped by h_{FE1} as follows.

2. Pulse test

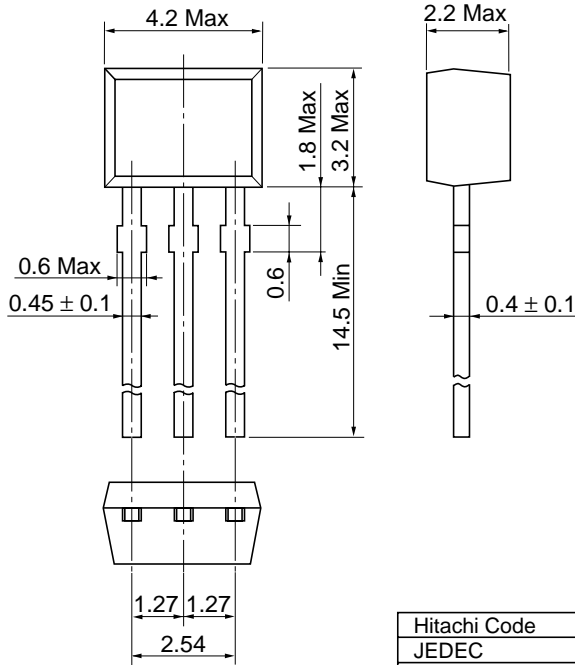
B	C	D
60 to 120	100 to 200	160 to 320

See characteristic curves of 2SC1213.



Package Dimensions

As of January, 2001
Unit: mm



Hitachi Code	SPAK
JEDEC	—
EIAJ	—
Mass (reference value)	0.10 g

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Hitachi, Ltd.

Semiconductor & Integrated Circuits.
Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109

URL	NorthAmerica	: http://semiconductor.hitachi.com/
	Europe	: http://www.hitachi-eu.com/hel/ecg
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For further information write to:

Hitachi Semiconductor
(America) Inc.
179 East Tasman Drive,
San Jose, CA 95134
Tel: <1> (408) 433-1990
Fax: <1> (408) 433-0223

Hitachi Europe GmbH
Electronic Components Group
Dornacher Straße 3
D-85622 Feldkirchen, Munich
Germany
Tel: <49> (89) 9 9180-0
Fax: <49> (89) 9 29 30 00

Hitachi Europe Ltd.
Electronic Components Group.
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA, United Kingdom
Tel: <44> (1628) 585000
Fax: <44> (1628) 585160

Hitachi Asia Ltd.
Hitachi Tower
16 Collyer Quay #20-00,
Singapore 049318
Tel: <65>-538-6533/538-8577
Fax: <65>-538-6933/538-3877
URL: <http://www.hitachi.com.sg>

Hitachi Asia Ltd.
(Taipei Branch Office)
4/F, No. 167, Tun Hwa North Road,
Hung-Kuo Building,
Taipei (105), Taiwan
Tel: <886>-(2)-2718-3666
Fax: <886>-(2)-2718-8180
Telex: 23222 HAS-TP
URL: <http://www.hitachi.com.tw>

Hitachi Asia (Hong Kong) Ltd.
Group III (Electronic Components)
7/F., North Tower,
World Finance Centre,
Harbour City, Canton Road
Tsim Sha Tsui, Kowloon,
Hong Kong
Tel: <852>-(2)-735-9218
Fax: <852>-(2)-730-0281
URL: <http://www.hitachi.com.hk>

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