
2SC5273

Silicon NPN Triple Diffused

HITACHI

Application

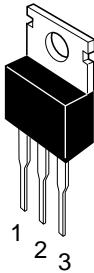
High voltage amplifier

Features

- High brakedown voltage
 $V_{(BR)CEO} = 1300 \text{ V min}$

Outline

TO-220AB



1. Base
2. Collector
(Flange)
3. Emitter

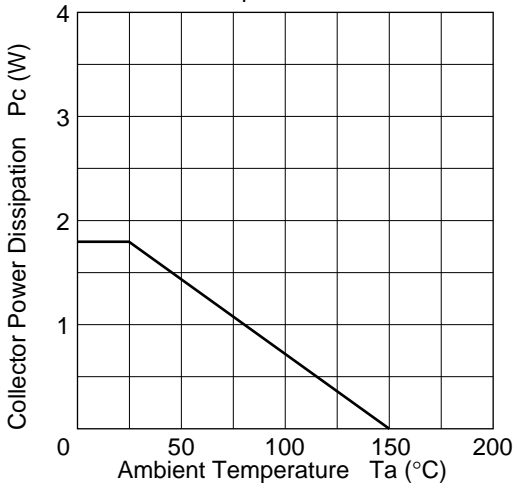
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	1300	V
Collector to emitter voltage	V_{CEO}	1300	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_{C}	30	mA
Collector peak current	$I_{\text{C(peak)}}$	60	mA
Collector power dissipation	P_{C}	1.8	W
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

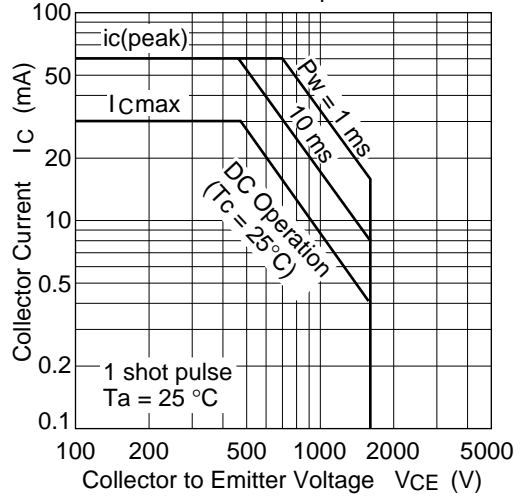
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector cutoff current	I_{CES}	—	—	10	μA	$V_{\text{CE}} = 1300 \text{ V}, R_{\text{BE}} = 0$
Collector cutoff current	I_{CEO}	—	—	100	μA	$V_{\text{CE}} = 1300 \text{ V}, R_{\text{BE}} = \infty$
Emitter cutoff current	I_{EBO}	—	—	10	μA	$V_{\text{EB}} = 6 \text{ V}, I_{\text{C}} = 0$
DC current transfer ratio	h_{FE}	10	—	—		$V_{\text{CE}} = 10 \text{ V}, I_{\text{C}} = 10 \text{ mA}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	—	—	5.0	V	$I_{\text{C}} = 10 \text{ mA}, I_{\text{B}} = 2 \text{ mA}$
Gain bandwidth product	f_{T}	—	5.5	—	MHz	$V_{\text{CE}} = 20 \text{ V}, I_{\text{C}} = 1 \text{ mA}$
Collector output capacitance	C_{ob}	—	3.4	—	pF	$V_{\text{CB}} = 100 \text{ V}, I_{\text{E}} = 0, f = 1 \text{ MHz}$

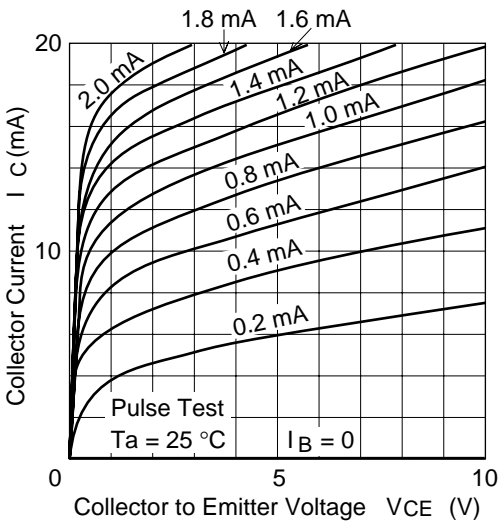
Maximum Collector Power Dissipation Curve



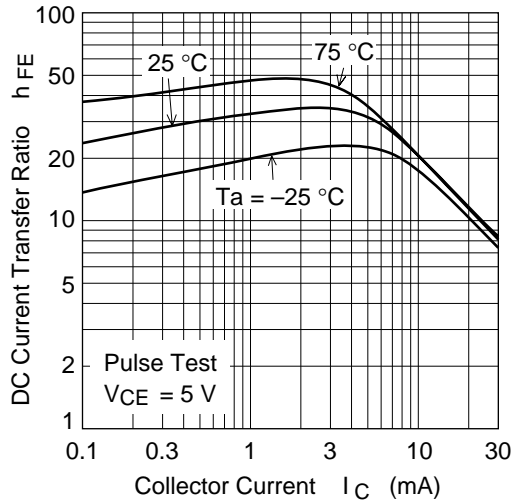
Area of Safe Operation



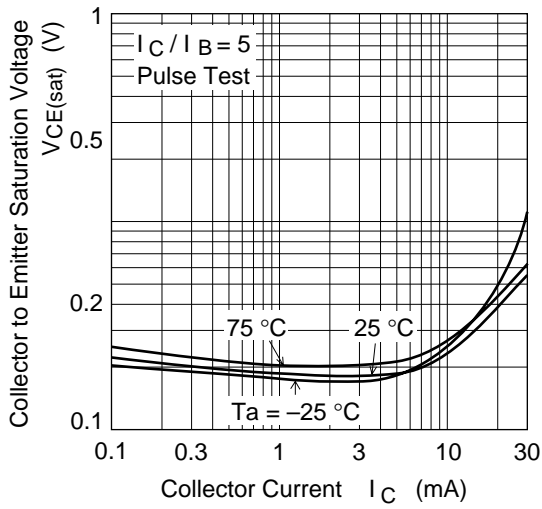
Typical Output Characteristics



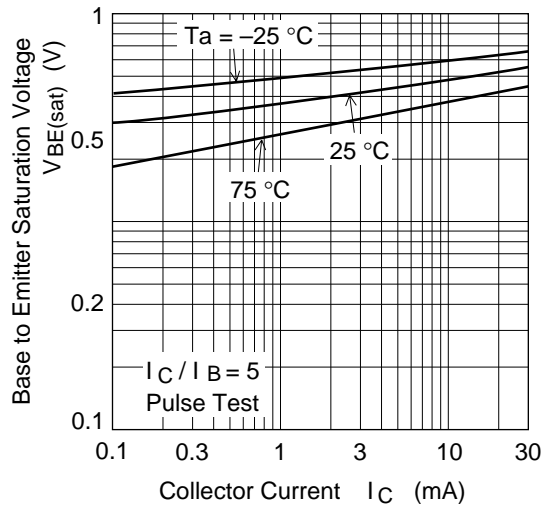
DC Current Transfer Ratio vs. Collector Current



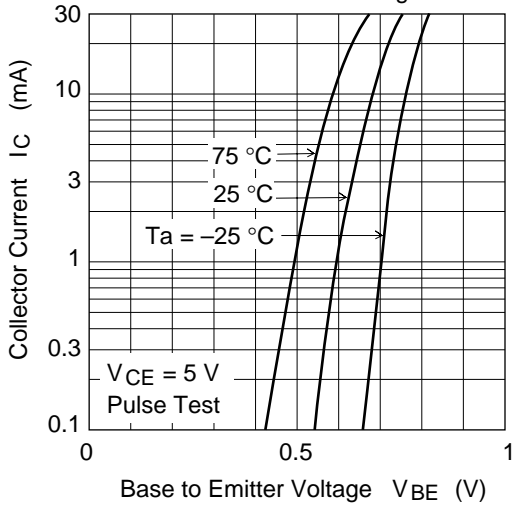
Collector to Emitter Saturation Voltage vs. Collector Current



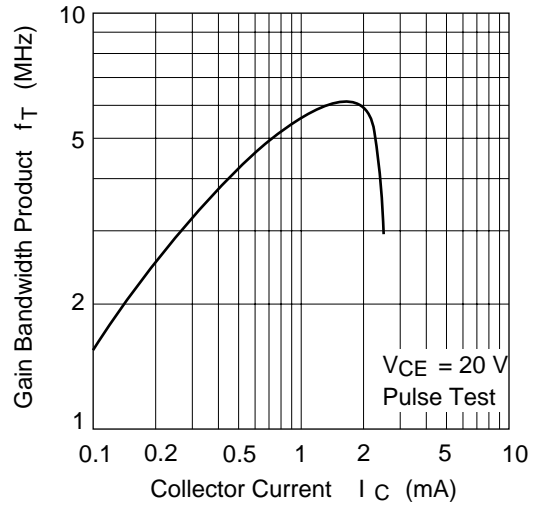
Base to Emitter Saturation Voltage vs. Collector Current

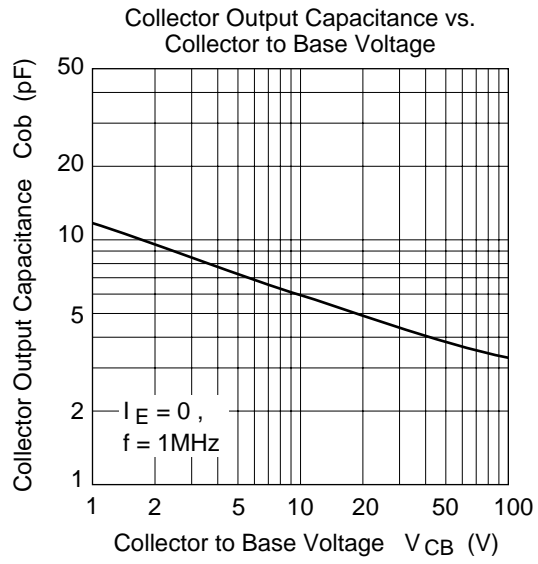


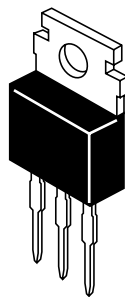
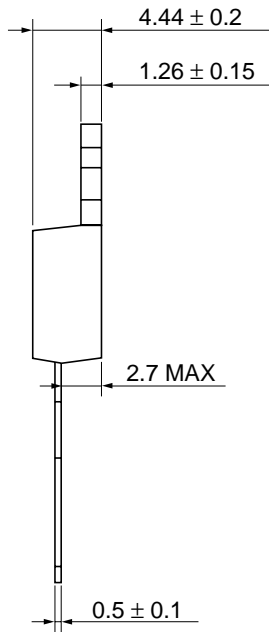
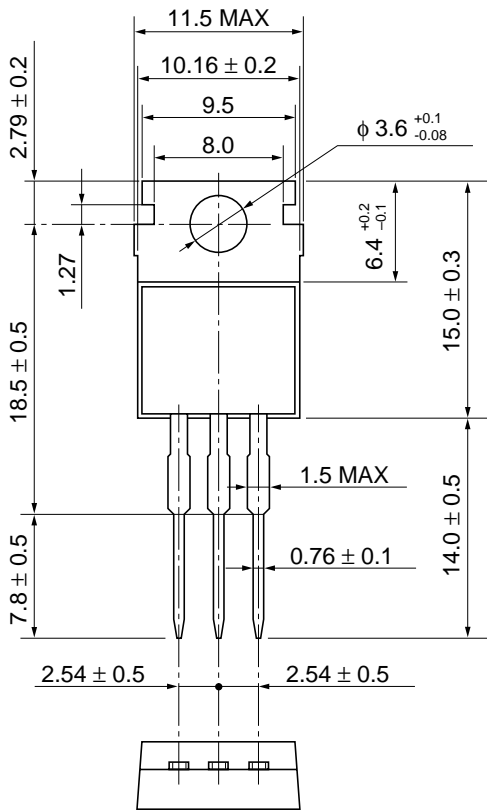
Collector Current vs. Base to Emitter Voltage



Gain Bandwidth Product vs. Collector Current







Hitachi Code	TO-220AB
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	1.8 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 North America : <http://semiconductor.hitachi.com/>
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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) 778322

Hitachi Asia Pte. Ltd.
16 Collyer Quay #20-00
Hitachi Tower
Singapore 049318
Tel: 535-2100
Fax: 535-1533

Hitachi Asia Ltd.
Taipei Branch Office
3F, Hung Kuo Building, No.167,
Tun-Hwa North Road, Taipei (105)
Tel: <886> (2) 2718-3666
Fax: <886> (2) 2718-8180

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
Telex: 40815 HITEC HX

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