

To all our customers

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Renesas Technology Home Page: <http://www.renesas.com>

Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

Cautions

Keep safety first in your circuit designs!

1. Renesas Technology Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage.

Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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2SC5273

Silicon NPN Triple Diffused

RENESAS

ADE-208-897 (Z)

1st. Edition

September 2000

Application

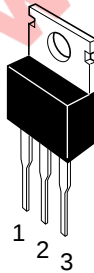
High voltage amplifier

Features

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

Outline

TO-220AB

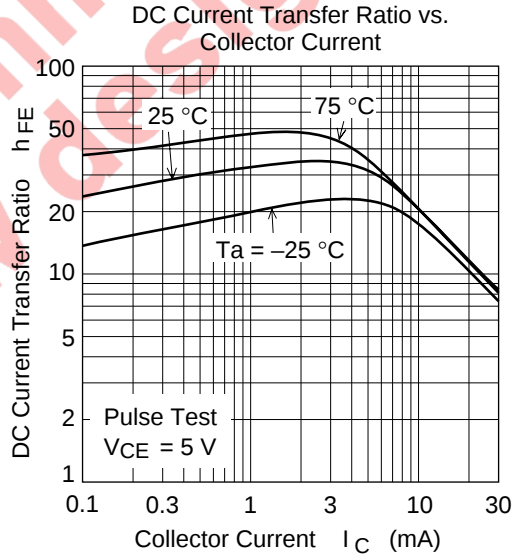
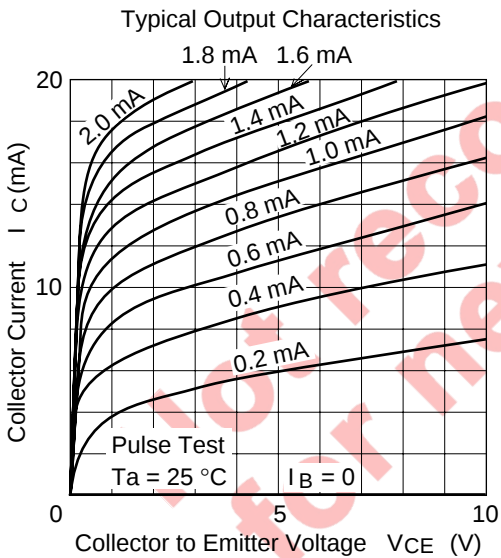
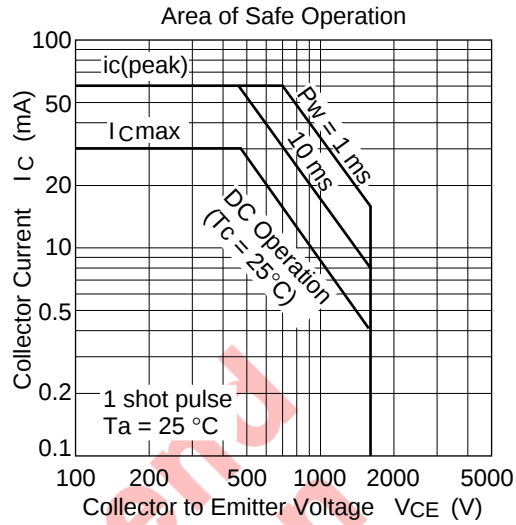
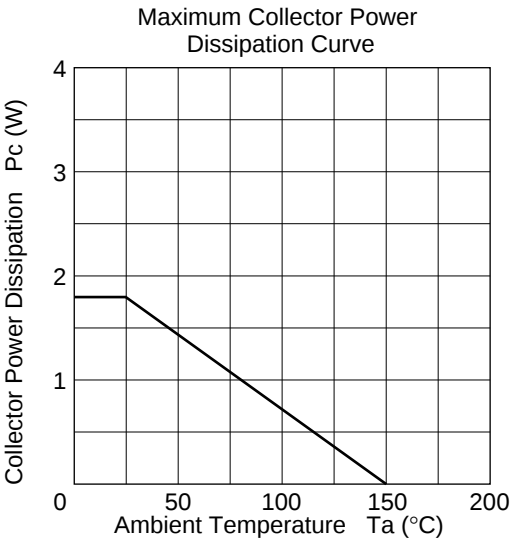


Absolute Maximum Ratings (Ta = 25°C)

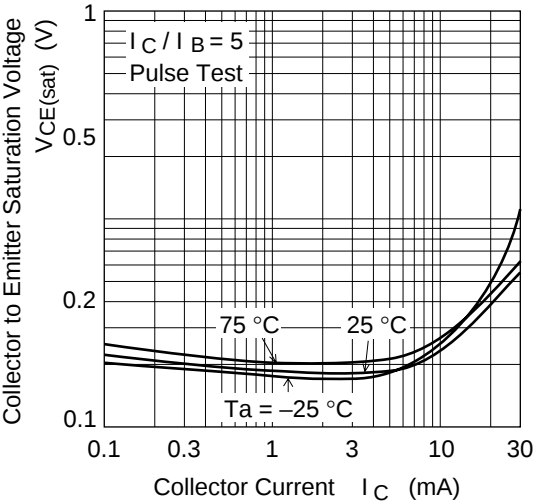
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	1300	V
Collector to emitter voltage	V_{CEO}	1300	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_C	30	mA
Collector peak current	$I_{C(peak)}$	60	mA
Collector power dissipation	P_C	1.8	W
Junction temperature	T_j	150	°C
Storage temperature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

Electrical Characteristics (Ta = 25°C)

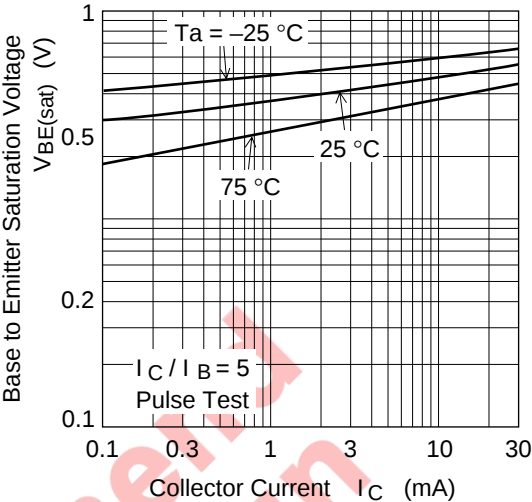
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector cutoff current	I_{CES}	—	—	10	μA	$V_{CE} = 1300\text{ V}$, $R_{BE} = 0$
Collector cutoff current	I_{CEO}	—	—	100	μA	$V_{CE} = 1300\text{ V}$, $R_{BE} =$
Emitter cutoff current	I_{EBO}	—	—	10	μA	$V_{EB} = 6\text{ V}$, $I_C = 0$
DC current transfer ratio	h_{FE}	10	—	—		$V_{CE} = 5\text{ V}$, $I_C = 1\text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	5.0	V	$I_C = 10\text{ mA}$, $I_B = 2\text{ mA}$
Gain bandwidth product	f_T	—	5.5	—	MHz	$V_{CE} = 20\text{ V}$, $I_C = 1\text{ mA}$
Collector output capacitance	C_{ob}	—	3.4	—	pF	$V_{CB} = 100\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$



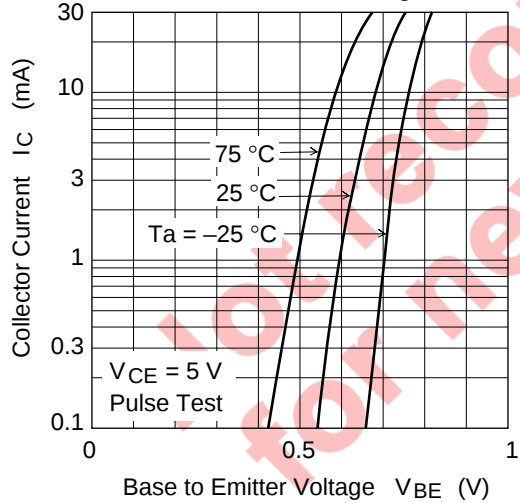
Collector to Emitter Saturation Voltage
vs. Collector Current



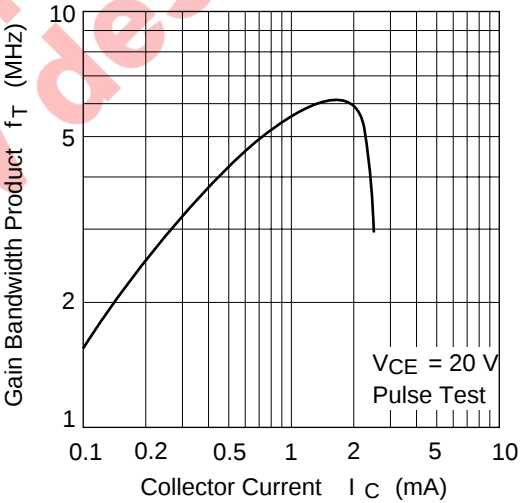
Base to Emitter Saturation Voltage
vs. Collector Current

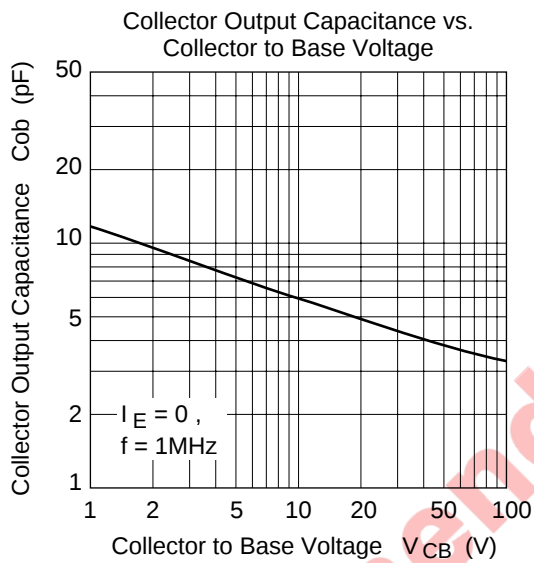


Collector Current vs.
Base to Emitter Voltage



Gain Bandwidth Product vs.
Collector Current





Not recommended
for new design

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