

To our customers,

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## Old Company Name in Catalogs and Other Documents

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On April 1<sup>st</sup>, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: <http://www.renesas.com>

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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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

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# 2SC5273

Silicon NPN Triple Diffused

**RENESAS**

ADE-208-897 (Z)

1st. Edition

September 2000

## Application

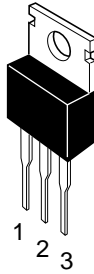
High voltage amplifier

## Features

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

## Outline

TO-220AB



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

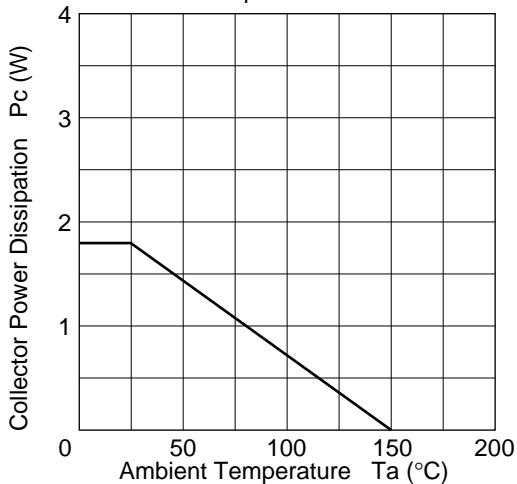
## Absolute Maximum Ratings (Ta = 25°C)

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

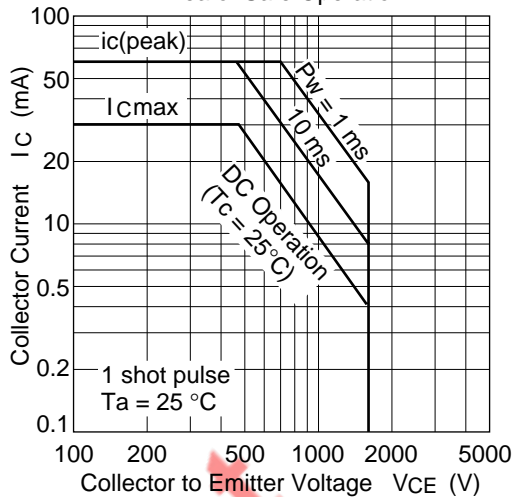
## Electrical Characteristics (Ta = 25°C)

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

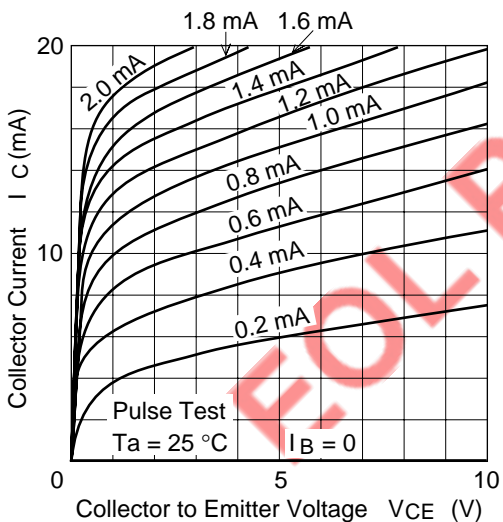
Maximum Collector Power Dissipation Curve



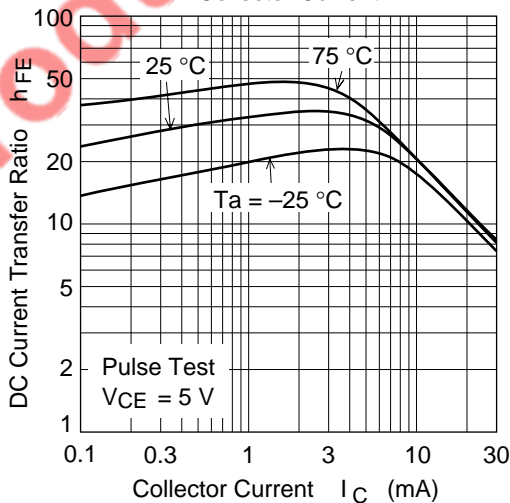
Area of Safe Operation



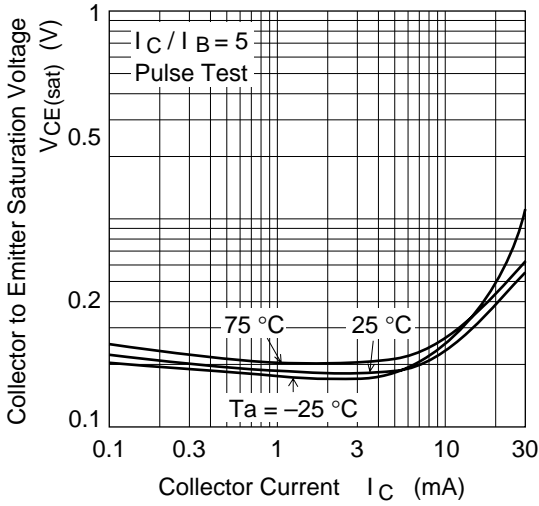
Typical Output Characteristics



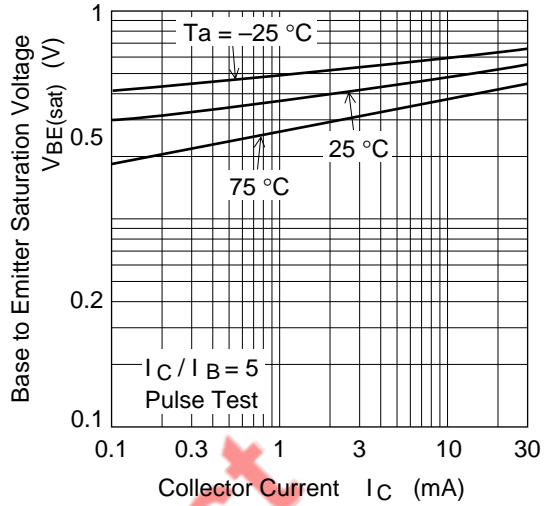
DC Current Transfer Ratio vs. Collector Current



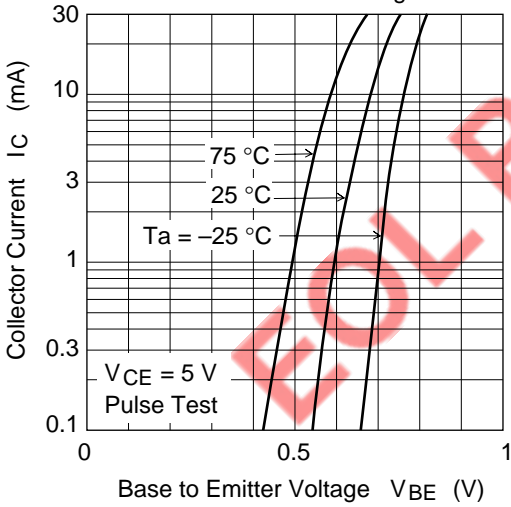
Collector to Emitter Saturation Voltage vs. Collector Current



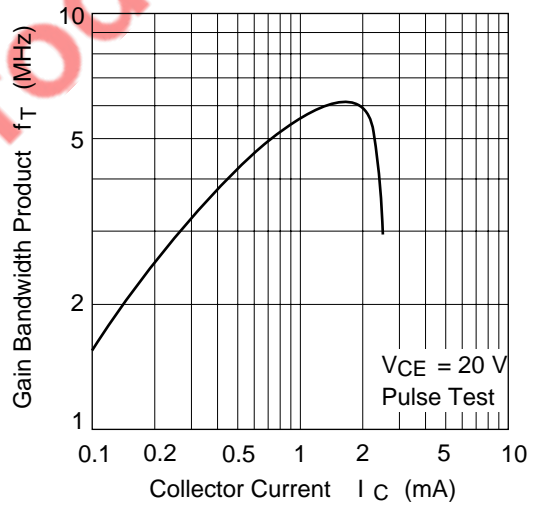
Base to Emitter Saturation Voltage vs. Collector Current



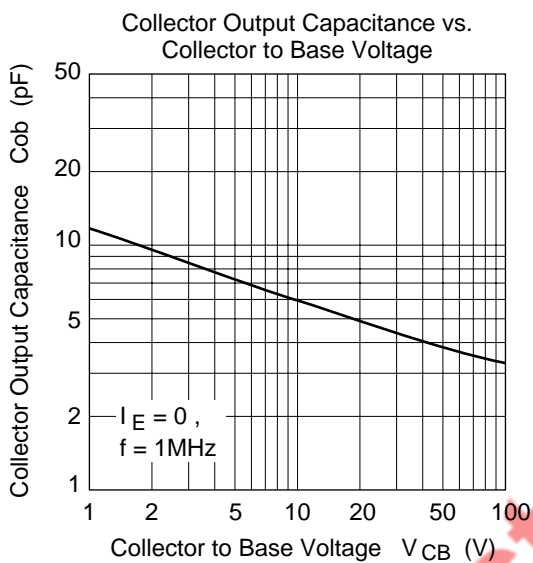
Collector Current vs. Base to Emitter Voltage



Gain Bandwidth Product vs. Collector Current







EOL Product

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