

To our customers,

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## Old Company Name in Catalogs and Other Documents

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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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EOL announced Product

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To all our customers

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

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# 2SB1091

Silicon PNP Triple Diffused

## RENESAS

ADE-208-867 (Z)

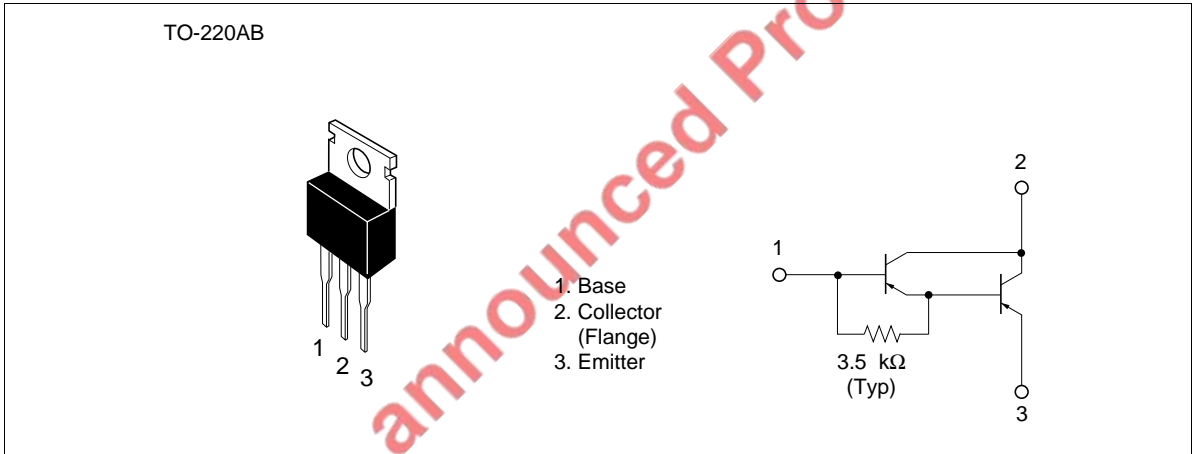
1st. Edition

September 2000

### Application

Low frequency power amplifier

### Outline



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

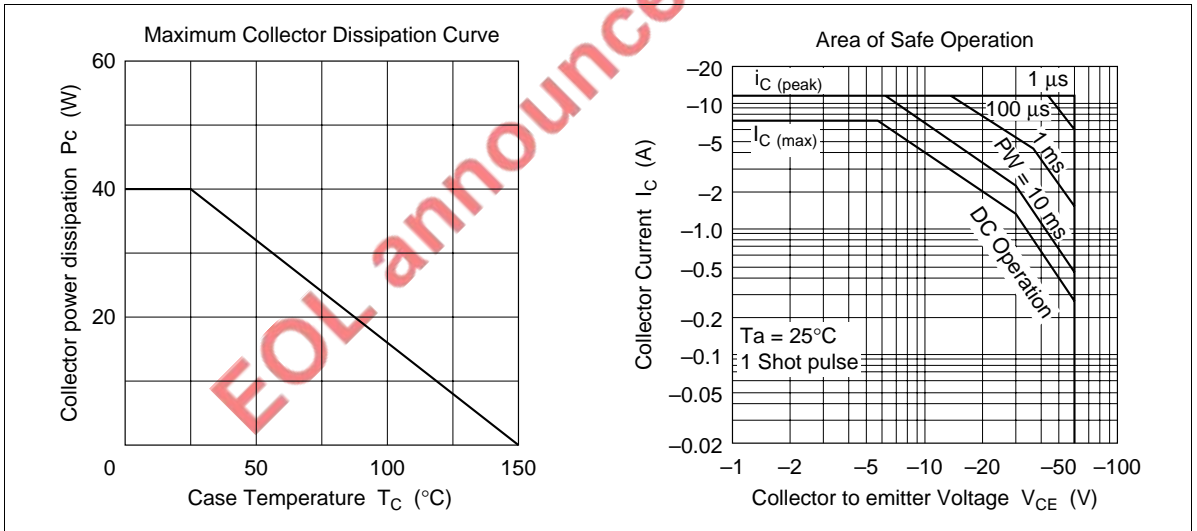
Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	-60	V
Collector to emitter voltage	$V_{CEO}$	-60	V
Emitter to base voltage	$V_{EBO}$	-7	V
Collector current	$I_C$	-8	A
Collector peak current	$I_{C(peak)}$	-12	A
Collector power dissipation	$P_C^{*1}$	40	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

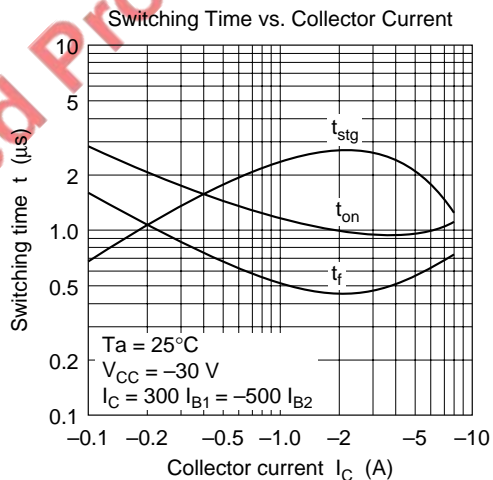
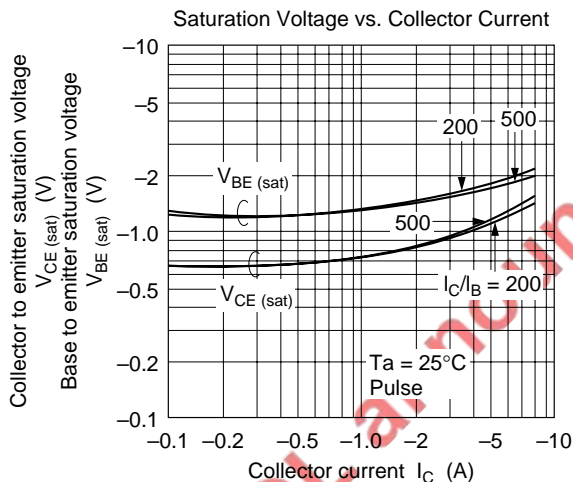
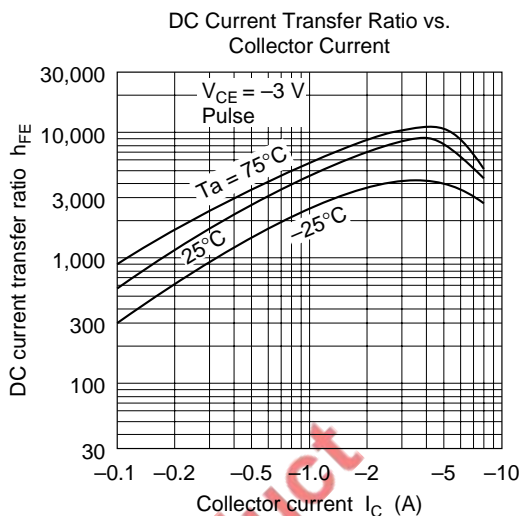
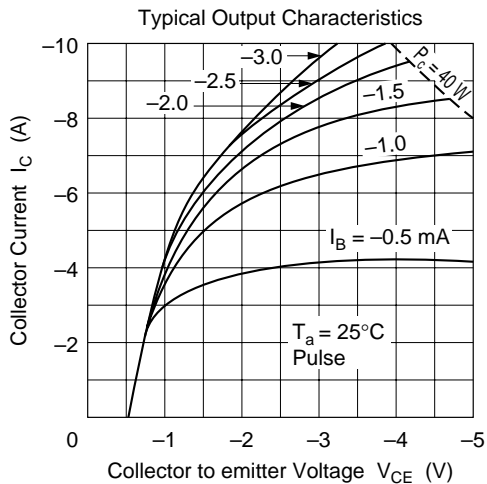
Note: 1. Value at  $T_C = 25^\circ\text{C}$ .

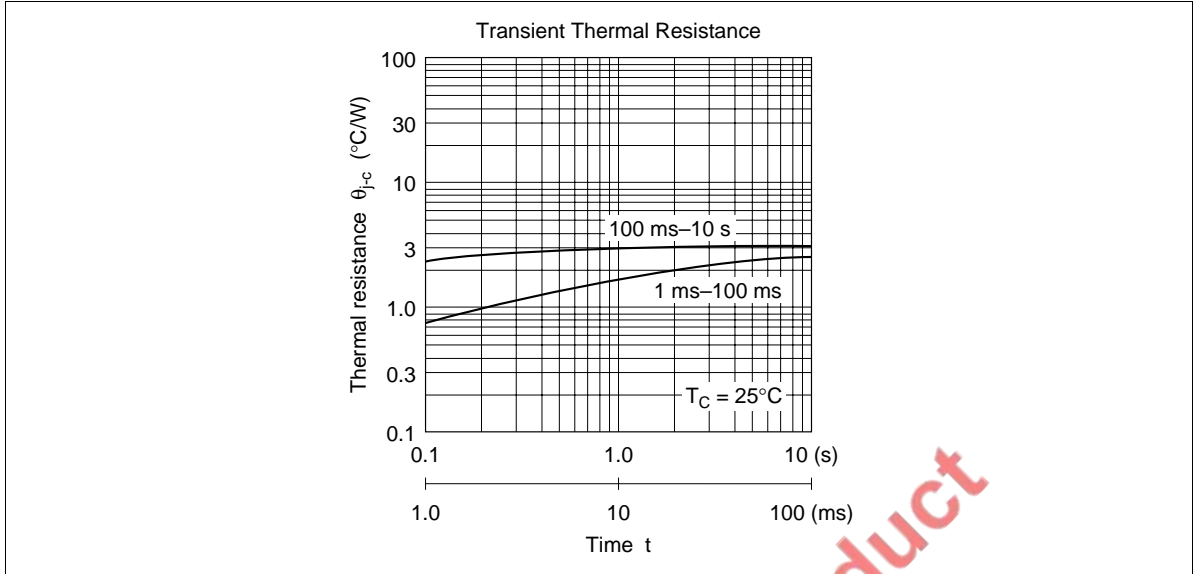
## Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-60	—	—	V	$I_C = -25 \text{ mA}$ , $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-7	—	—	V	$I_E = -50 \text{ mA}$ , $I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	-100	$\mu\text{A}$	$V_{CB} = -60 \text{ V}$ , $I_E = 0$
	$I_{CEO}$	—	—	-10	$\mu\text{A}$	$V_{CE} = -50 \text{ V}$ , $R_{BE} = \infty$
DC current transfer ratio	$h_{FE}$	1000	—	20000		$V_{CE} = -3 \text{ V}$ , $I_C = -4 \text{ A}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)1}$	—	—	-1.5	V	$I_C = -4 \text{ A}$ , $I_B = -8 \text{ mA}^{*1}$
	$V_{CE(sat)2}$	—	—	-3.0	V	$I_C = -8 \text{ A}$ , $I_B = -80 \text{ mA}^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)1}$	—	—	-2.0	V	$I_C = -4 \text{ A}$ , $I_B = -8 \text{ mA}^{*1}$
	$V_{BE(sat)2}$	—	—	-3.5	V	$I_C = -8 \text{ A}$ , $I_B = -80 \text{ mA}^{*1}$
Turn on time	$t_{on}$	—	1.0	—	$\mu\text{s}$	$I_C = -4 \text{ A}$ , $I_{B1} = -I_{B2} = -8 \text{ mA}$
Storage time	$t_{stg}$	—	2.5	—	$\mu\text{s}$	
Fall time	$t_f$	—	0.5	—	$\mu\text{s}$	

Note: 1. Pulse Test.







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