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

April 1st, 2010
Renesas Electronics Corporation

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

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Not recommended
for new design

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2SB739

Silicon PNP Epitaxial

REJ03G0650-0200
 (Previous ADE-208-1030)
 Rev.2.00
 Aug.10.2005

Application

- Low frequency power amplifier
- Complementary pair with 2SD787 and 2SD788

Outline

RENESAS Package code: PRSS0003DC-A
 (Package name: TO-92 Mod)



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-20	V
Collector to emitter voltage	V_{CEO}	-20	V
Emitter to base voltage	V_{EBO}	-6	V
Collector current	I_C	-2	A
Collector power dissipation	P_C	0.9	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

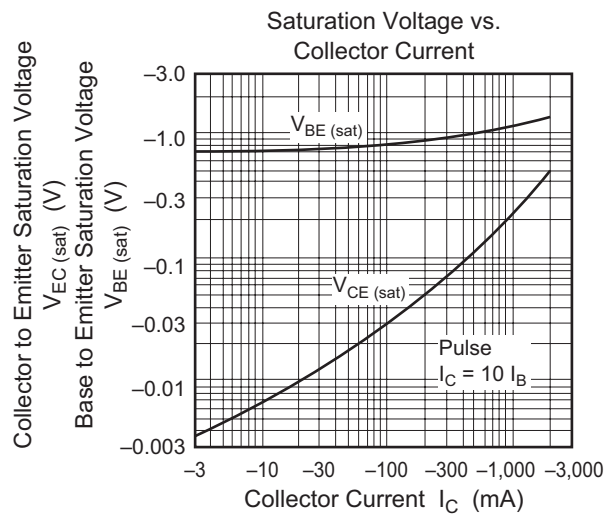
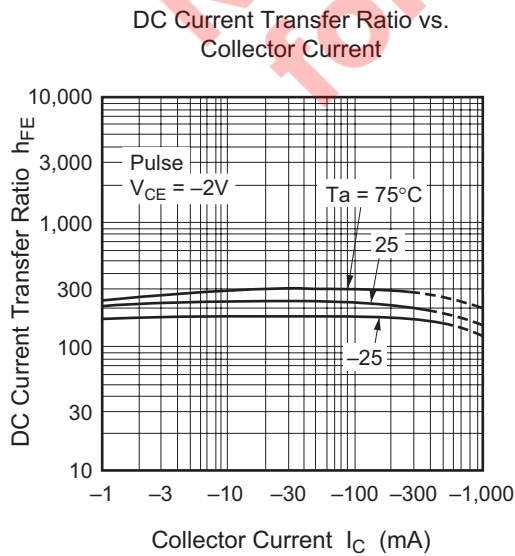
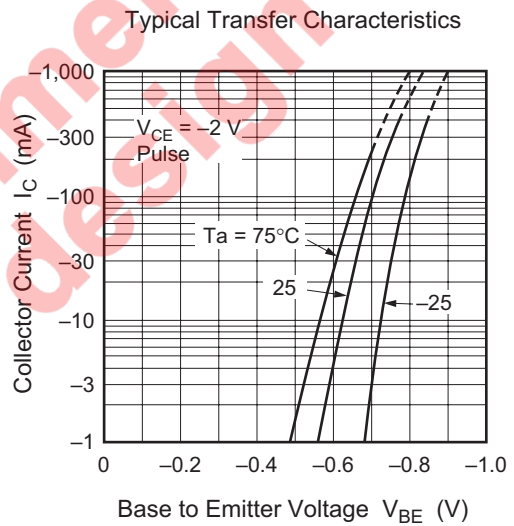
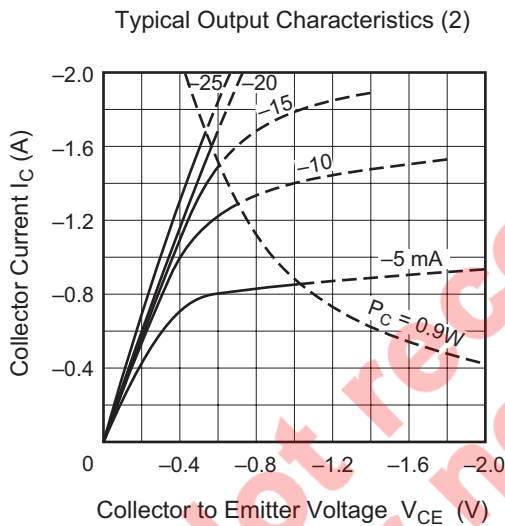
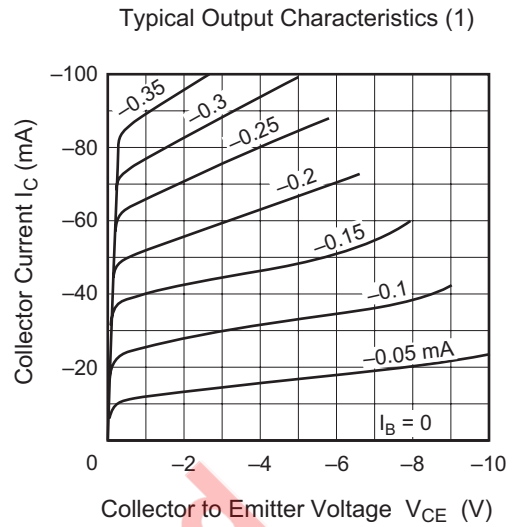
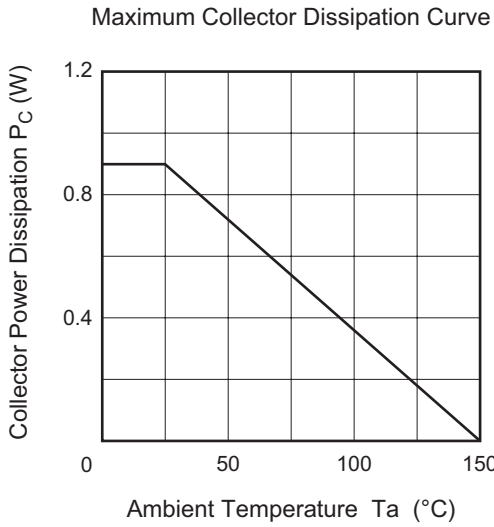
Electrical Characteristics

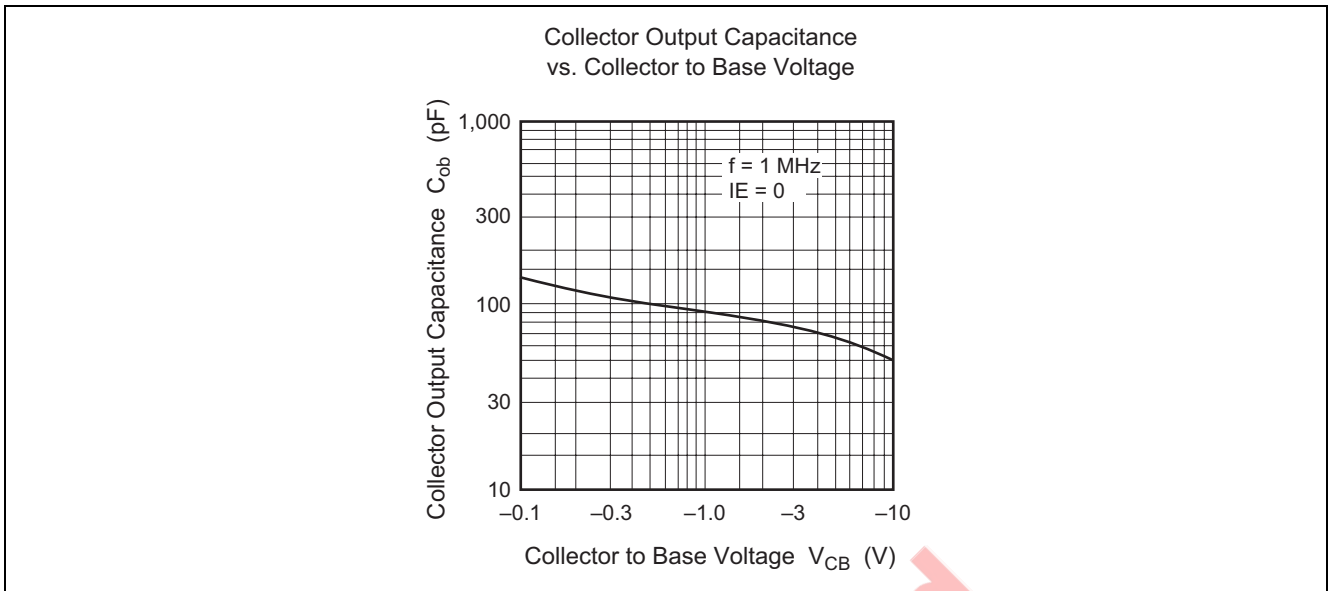
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-20	—	—	V	$I_C = -10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-20	—	—	V	$I_C = -1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-6	—	—	V	$I_E = -10 \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-2	μA	$V_{CB} = -16 \text{ V}, I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	-0.2	μA	$V_{EB} = -6 \text{ V}, I_C = 0$
DC current transfer ratio	h_{FE}	160	—	320		$V_{CE} = -2 \text{ V}, I_C = -0.1 \text{ A}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.3	V	$I_C = -1 \text{ A}, I_B = -0.1 \text{ A}$
Gain bandwidth product	f_T	—	150	—	MHz	$V_{CE} = -2 \text{ V}, I_C = -10 \text{ mA}$
Collector output capacitance	C_{ob}	—	50	—	pF	$V_{CB} = -10 \text{ V}, I_E = 0,$ $f = 1 \text{ MHz}$

Not recommend
for new design

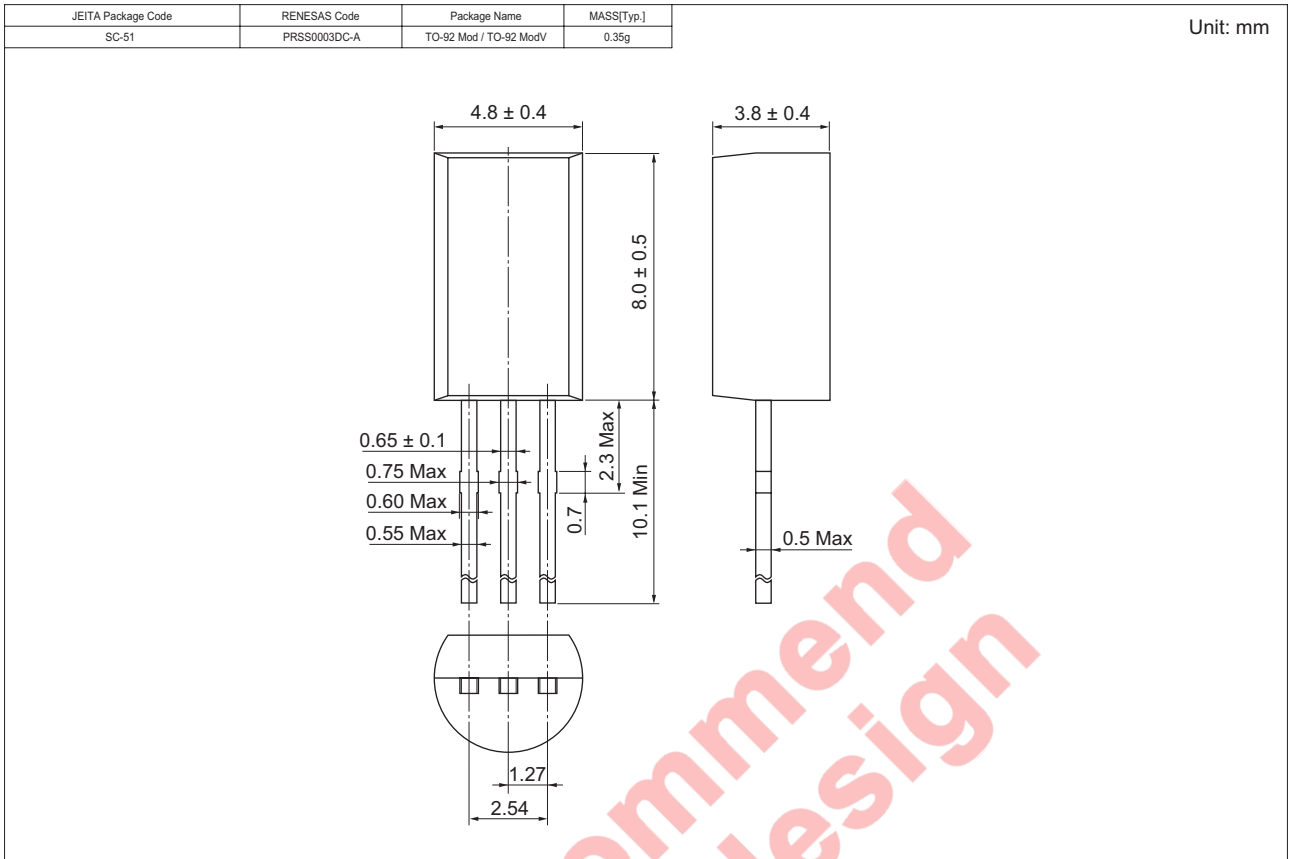
Main Characteristics





Not recommended
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Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SB739CTZ-E	2500	Hold Box, Radial Taping

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