

To our customers,

Old Company Name in Catalogs and Other Documents

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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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2SB1028

Silicon PNP Epitaxial

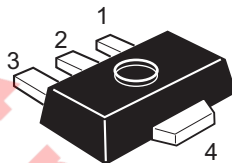
REJ03G0663-0200
 (Previous ADE-208-1039)
 Rev.2.00
 Aug.10.2005

Application

Low frequency power amplifier

Outline

RENESAS Package code: PLZZ0004CA-A
 (Package name: UPAK[®])



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

*UPAK is a trademark of Renesas Technology Corp.

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-180	V
Collector to emitter voltage	V_{CEO}	-160	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-1.5	A
Collector peak current	$i_{C(peak)}^{*1}$	-3	A
Collector power dissipation	P_C^{*2}	1	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

Notes: 1. $PW \leq 10$ ms, Duty cycle $\leq 20\%$

2. Value on the alumina ceramic board (12.5 × 20 × 0.7 mm)

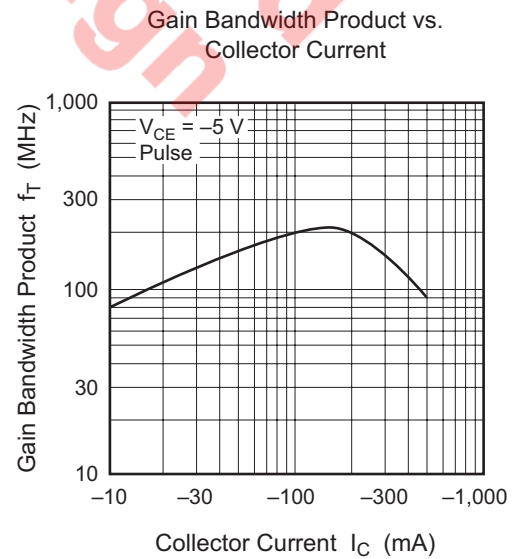
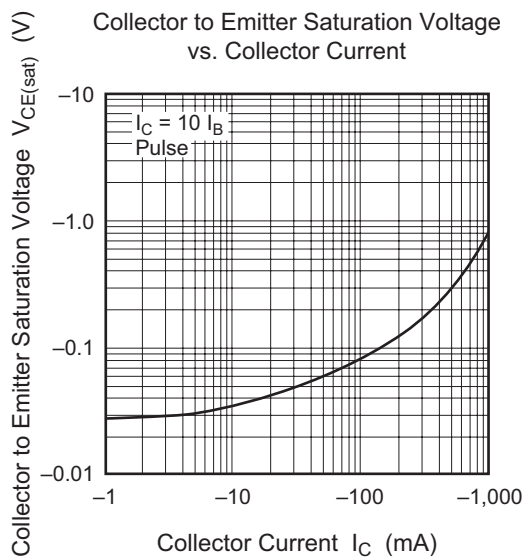
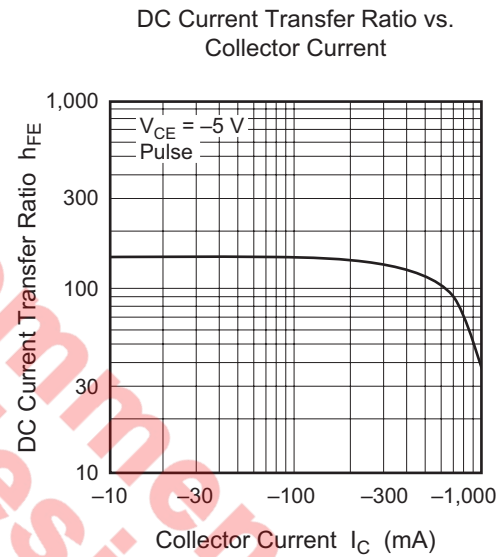
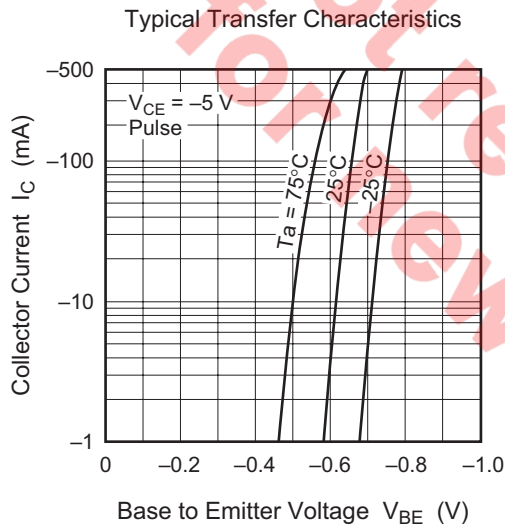
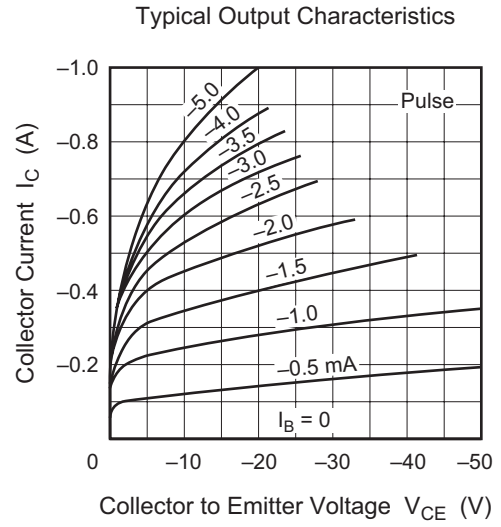
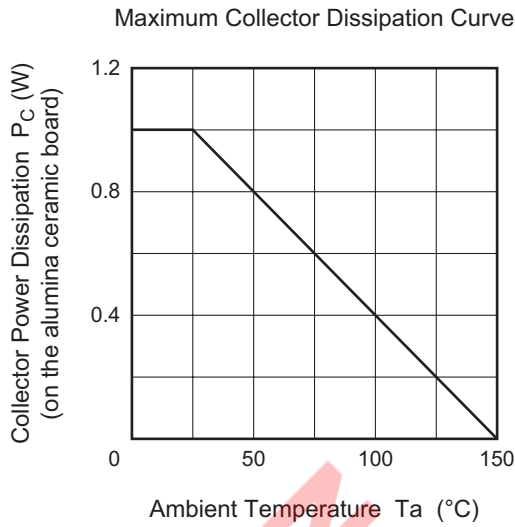
Electrical Characteristics

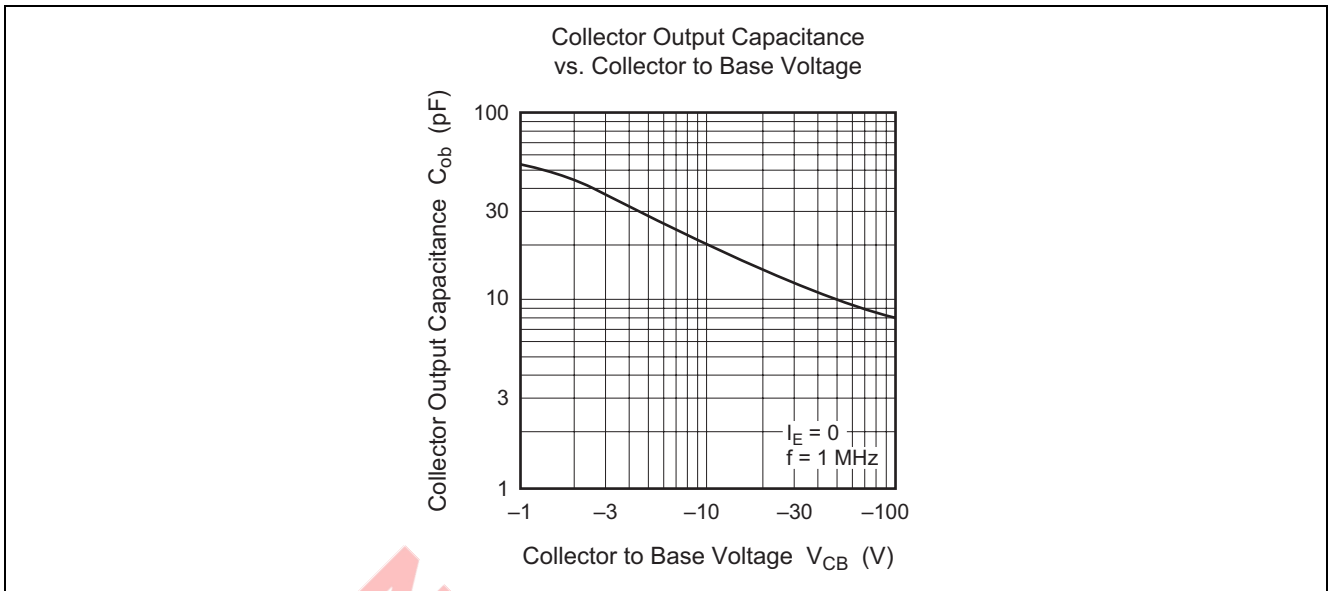
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-180	—	—	V	$I_C = -1 \text{ mA}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-160	—	—	V	$I_C = -10 \text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-5	—	—	V	$I_E = -1 \text{ mA}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-10	μA	$V_{CB} = -160 \text{ V}$, $I_E = 0$
DC current transfer ratio	h_{FE1}	100	—	200		$V_{CE} = -5 \text{ V}$, $I_C = -0.15 \text{ A}$, pulse
	h_{FE2}	30	—	—		$V_{CE} = -5 \text{ V}$, $I_C = -0.5 \text{ A}$, pulse
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-1.0	V	$I_C = -0.5 \text{ A}$, $I_B = -50 \text{ mA}$, Pulse
Base to emitter voltage	V_{BE}	—	—	-0.9	V	$V_{CE} = -5 \text{ V}$, $I_C = -0.15 \text{ A}$, pulse

Not recommend
for new design

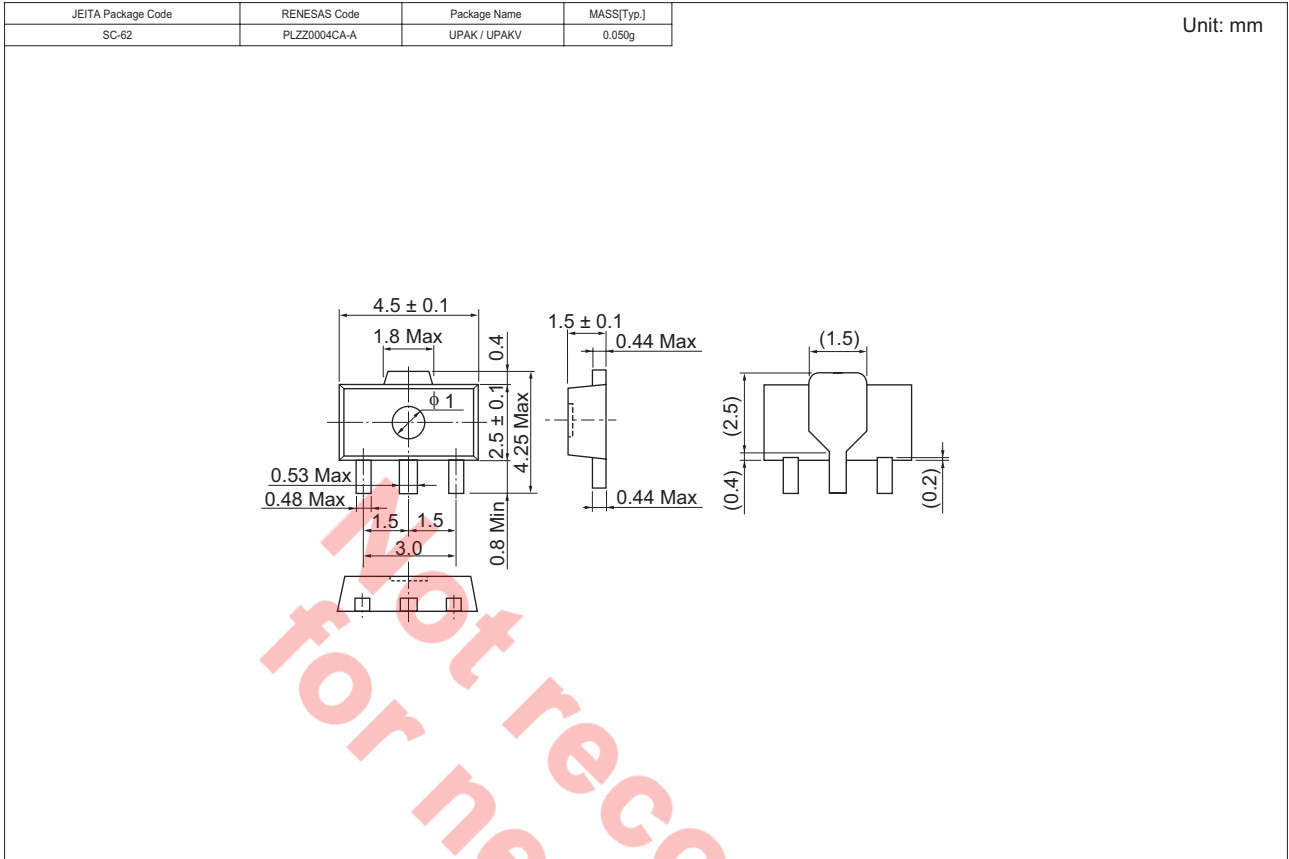
Main Characteristics





Not recommend
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Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SB1028EMTR-E	1000	ϕ 178 mm Reel, 12 mm Emboss Taping

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