

2SB1001

Silicon PNP Epitaxial

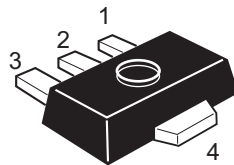
REJ03G0659-0200
(Previous ADE-208-1034)
Rev.2.00
Aug.10.2005

Application

- Low frequency power amplifier
- Complementary pair with 2SD1367

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}	-20	V
Collector to emitter voltage	V_{CEO}	-16	V
Emitter to base voltage	V_{EBO}	-6	V
Collector current	I_C	-2	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 $\leq 20\%$

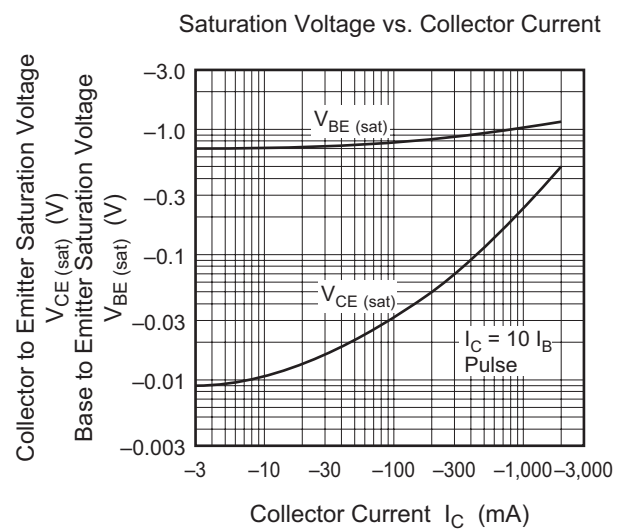
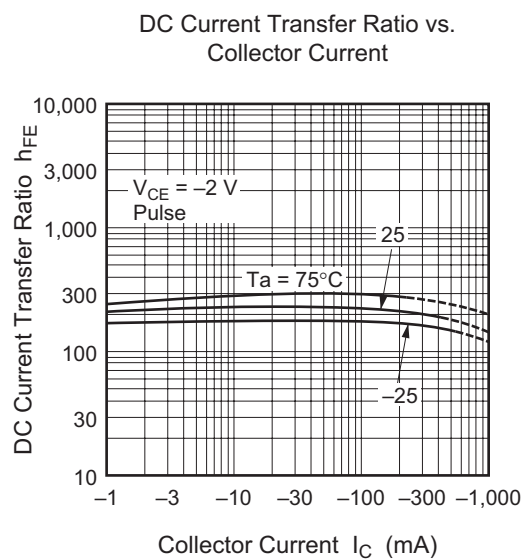
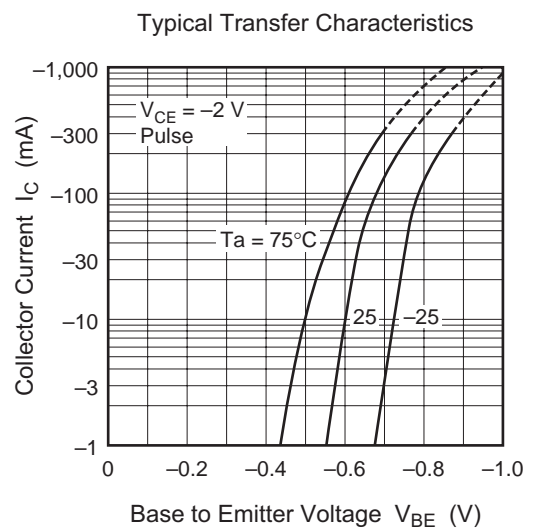
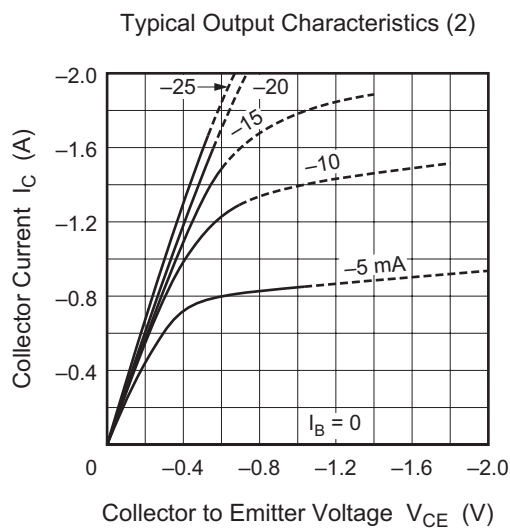
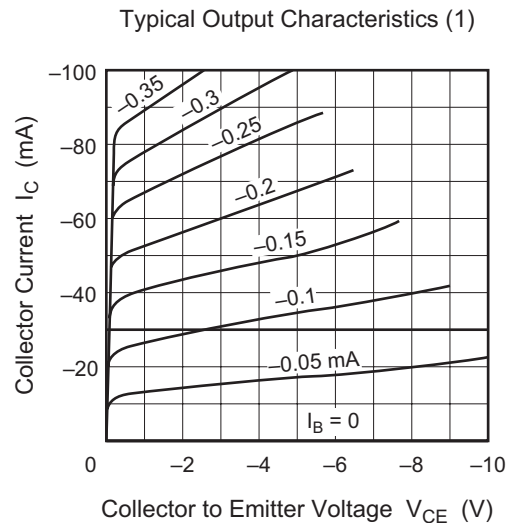
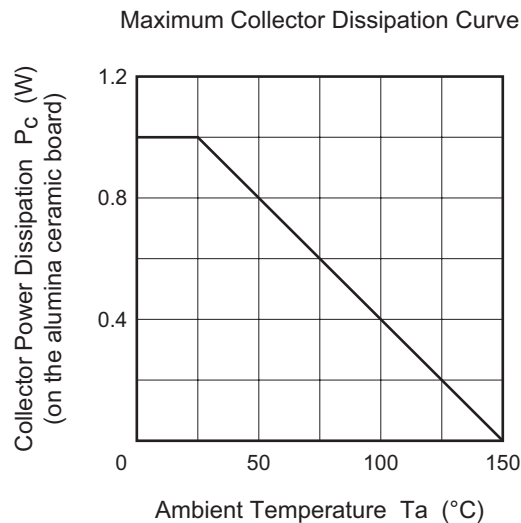
2. Value on the alumina ceramic board (12.5 × 20 × 0.7 mm)

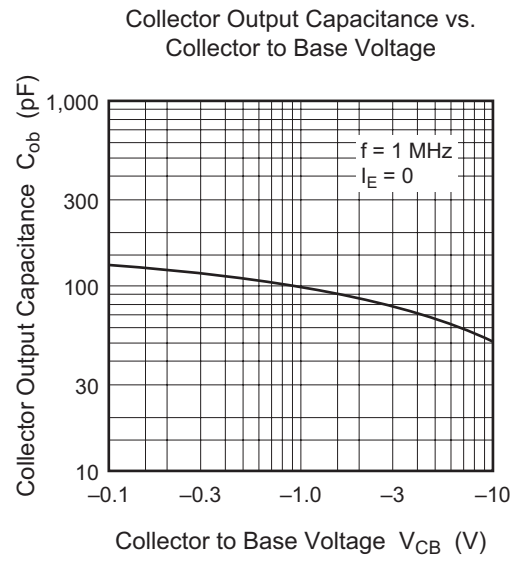
Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-20	—	—	V	$I_C = -10\ \mu A$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-16	—	—	V	$I_C = -1\ mA$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-6	—	—	V	$I_E = -10\ \mu A$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-0.1	μA	$V_{CB} = -16\ V$, $I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	-0.1	μA	$V_{EB} = -5\ V$, $I_C = 0$
DC current transfer ratio	h_{FE}	160	—	320		$V_{CE} = -2\ V$, $I_C = -0.1\ A$ (Pulse test)
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	-0.15	-0.3	V	$I_C = -1\ A$, $I_B = -0.1\ A$ (Pulse test)
Base to emitter saturation voltage	$V_{BE(sat)}$	—	-1.0	-1.2	V	$I_C = -1\ A$, $I_B = -0.1\ A$ (Pulse test)
Gain bandwidth product	f_T	—	150	—	MHz	$V_{CE} = -2\ V$, $I_C = -10\ mA$
Collector output capacitance	C_{ob}	—	50	—	pF	$V_{CB} = -10\ V$, $I_E = 0$, $f = 1\ MHz$

Main Characteristics

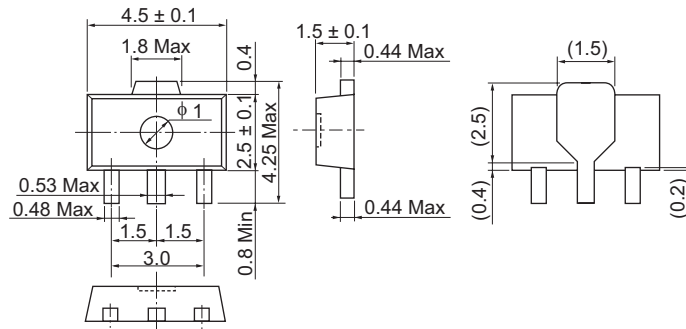




Package Dimensions

JEITA Package Code	RENESAS Code	Package Name	MASS[Typ.]
SC-62	PLZZ0004CA-A	UPAK / UPAKV	0.050g

Unit: mm



Ordering Information

Part Name	Quantity	Shipping Container
2SB1001BJTR-E	1000	ϕ 178 mm Reel, 12 mm Emboss Taping

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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