

2SD1419

Silicon NPN Epitaxial

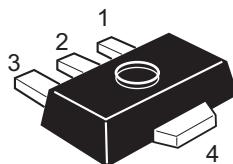
REJ03G0788-0200
(Previous ADE-208-1150)
Rev.2.00
Aug.10.2005

Application

- Low frequency power amplifier
- Complementary pair with 2SB1026

Outline

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



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

Note: Marking is "DE".

*UPAK is a trademark of Renesas Technology Corp.

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V _{CBO}	120	V
Collector to emitter voltage	V _{CEO}	100	V
Emitter to base voltage	V _{EBO}	5	V
Collector current	I _C	1	A
Collector peak current	i _{C(peak)} ^{*1}	2	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 ≤ 10 ms, Duty cycle ≤ 20%
2. Value on the alumina ceramic board (12.5 x 20 x 0.7 mm)

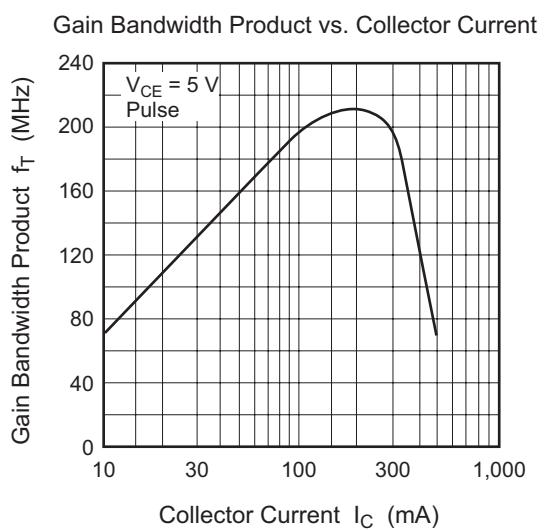
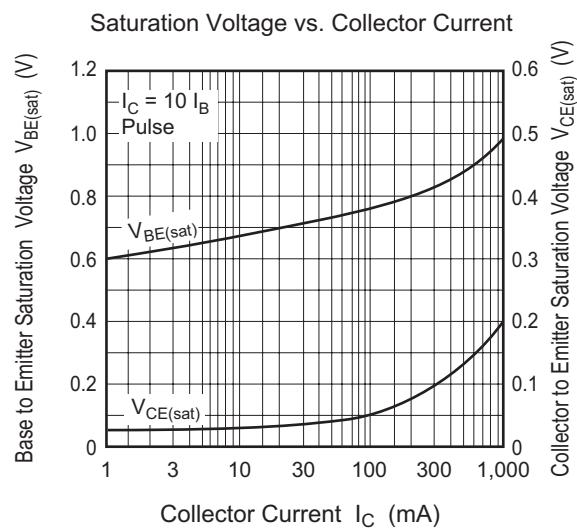
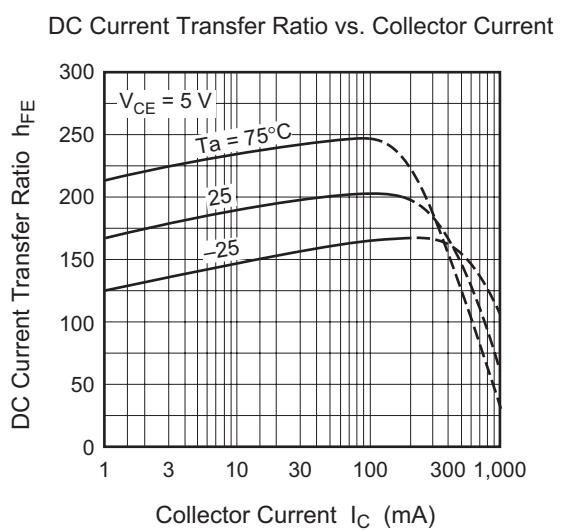
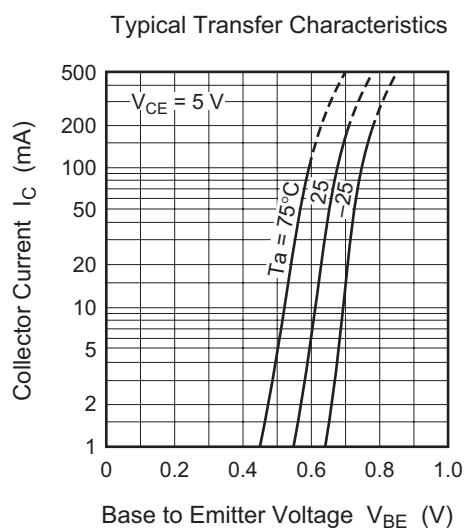
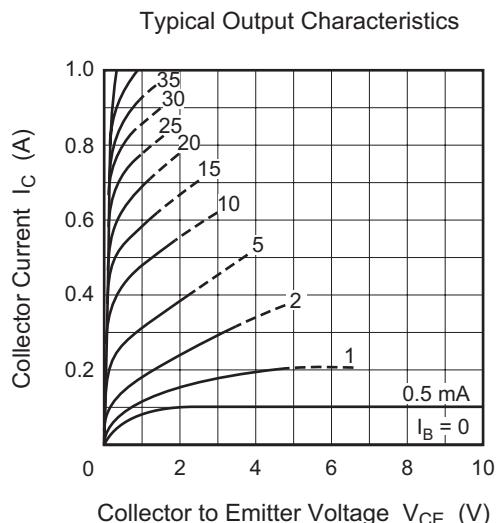
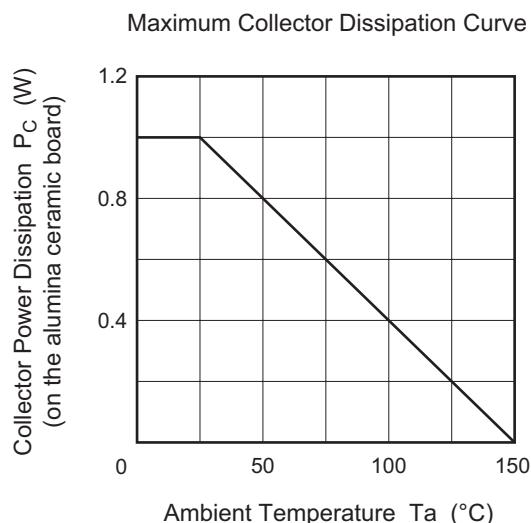
Electrical Characteristics

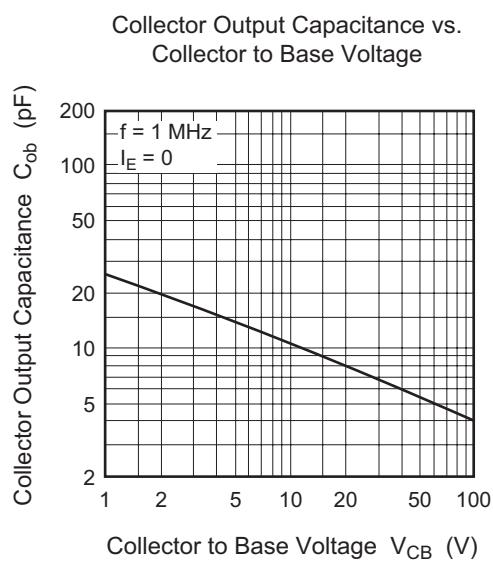
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	120	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	100	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	10	μA	$V_{CB} = 100 \text{ V}, I_E = 0$
DC current transfer ratio	h_{FE1}	100	—	200		$V_{CE} = 5 \text{ V}, I_C = 150 \text{ mA}^{\ast 1}$
	h_{FE2}	30	—	—		$V_{CE} = 5 \text{ V}, I_C = 500 \text{ mA}^{\ast 1}$
Collector to emitter saturation voltage	$V_{CE(\text{sat})}$	—	—	1	V	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}^{\ast 1}$
Base to emitter voltage	V_{BE}	—	—	1.5	V	$V_{CE} = 5 \text{ V}, I_C = 150 \text{ mA}^{\ast 1}$
Gain bandwidth product	f_T	—	140	—	MHz	$V_{CE} = 5 \text{ V}, I_C = 150 \text{ mA}^{\ast 1}$
Collector output capacitance	C_{ob}	—	12	—	pF	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$

Notes: 1. Pulse test

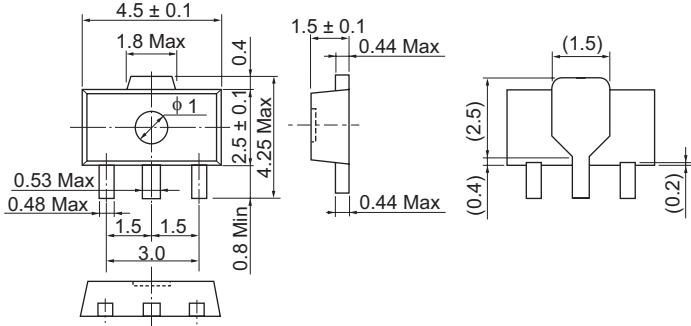
Main Characteristics





Package Dimensions

JEITA Package Code	RENESAS Code	Package Name	MASS(Typ.)	Unit: mm
SC-62	PLZZ0004CA-A	UPAK / UPAKV	0.050g	



Ordering Information

Part Name	Quantity	Shipping Container
2SD1419DETL-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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