

2SD1421

Silicon NPN Epitaxial

REJ03G0789-0200 (Previous ADE-208-1152) Rev.2.00 Aug.10.2005

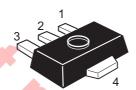
Application

Low frequency power amplifier

Outline

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

(Fackage flame, OFAR 5)



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

*UPAK is a trademark of Renesas Technology Corp.

Absolute Maximum Ratings

 $(Ta = 25^{\circ}C)$

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	А
Collector peak current	i _{C(peak)} *1	3	А
Collector power dissipation	Pc*2	1	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	_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

 $(Ta = 25^{\circ}C)$

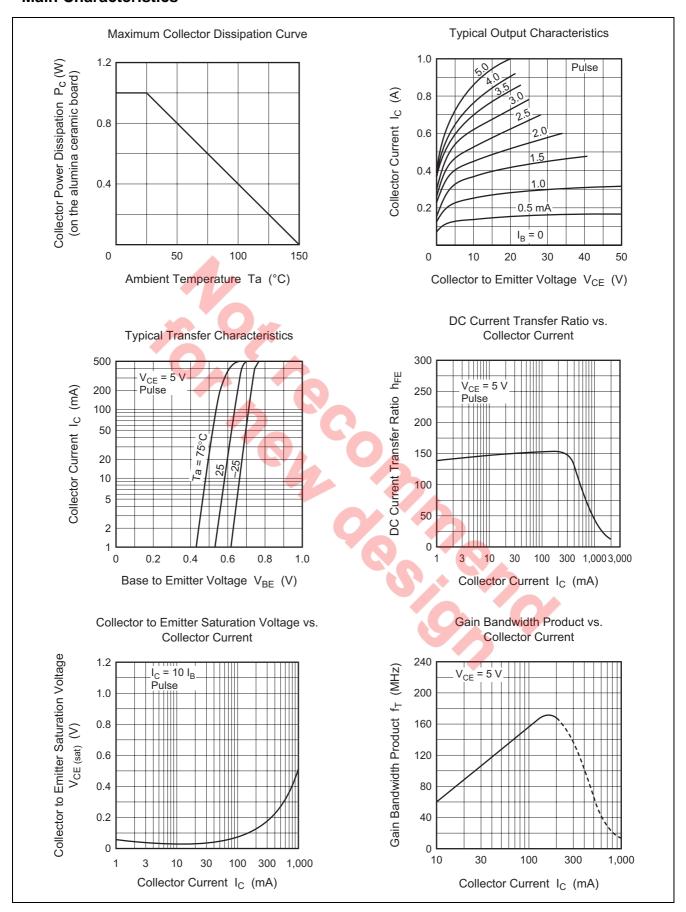
Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	V _{(BR)CBO}	180	_	_	V	$I_C = 1 \text{ mA}, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	160	_	_	V	I _C = 10 mA, R _{BE} = ∞
Emitter to base breakdown voltage	V _{(BR)EBO}	5	_	_	V	$I_E = 1 \text{ mA}, I_C = 0$
Collector cutoff current	I _{CBO}	_	_	10	μΑ	V _{CB} = 160 V, I _E = 0
DC current transfer ratio	h _{FE1} *1	60	_	200		V _{CE} = 5 V, I _C = 0.15 A
	h _{FE2}	30	_	_		V _{CE} = 5 V, I _C = 0.5 A
Collector to emitter saturation voltage	V _{CE(sat)}	_	_	1.0	V	I _C = 0.5 A, I _B = 50 mA, Pulse
Base to emitter voltage	V_{BE}	_	_	0.9	V	V _{CE} = 5 V, I _C = 0.15 A, Pulse

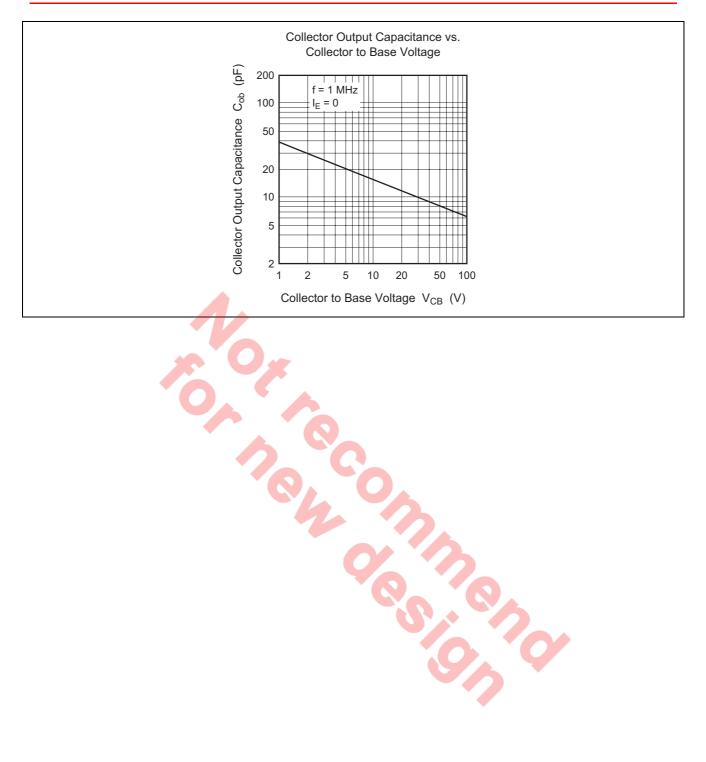
Note: 1. The 2SD1421 is grouped by h_{FE1} as follows.

Mark	ED	EE	
h _{FE1}	60 to 120	100 to 200	

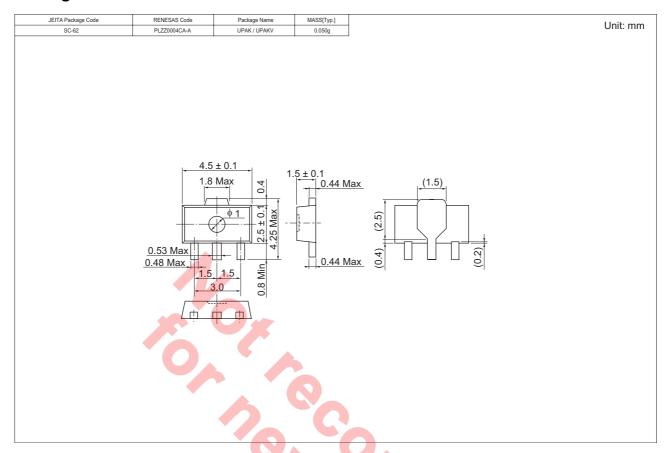


Main Characteristics





Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SD1421EDTR-E	1000	φ 178 mm Reel, 12 mm Emboss Taping
2SD1421EETR-E		

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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Renesas Technology America, Inc. 450 Holger Way, San Jose, CA 95134-1368, U.S.A Tel: <1> (408) 382-7500, Fax: <1> (408) 382-7501

Renesas Technology Europe Limited
Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K.
Tel: <44> (1628) 585-100, Fax: <44> (1628) 585-900

Renesas Technology Hong Kong Ltd.

7th Floor, North Tower, World Finance Centre, Harbour City, 1 Canton Road, Tsimshatsui, Kowloon, Hong Kong Tel: <852> 2265-6688, Fax: <852> 2730-6071

Renesas Technology Taiwan Co., Ltd. 10th Floor, No.99, Fushing North Road, Taipei, Taiwan Tel: <886> (2) 2715-2888, Fax: <886> (2) 2713-2999

Renesas Technology (Shanghai) Co., Ltd. Unit2607 Ruijing Building, No.205 Maoming Road (S), Shanghai 200020, China Tel: <86> (21) 6472-1001, Fax: <86> (21) 6415-2952

Renesas Technology Singapore Pte. Ltd.

1 Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632 Tel: <65> 6213-0200, Fax: <65> 6278-8001

Renesas Technology Korea Co., Ltd.Kukje Center Bldg. 18th Fl., 191, 2-ka, Hangang-ro, Yongsan-ku, Seoul 140-702, Korea Tel: <82> 2-796-3115, Fax: <82> 2-796-2145

Renesas Technology Malaysia Sdn. Bhd.

Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No.18, Jalan Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia Tel: <603> 7955-9390, Fax: <603> 7955-9510

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