

# 2SD1470

Silicon NPN Epitaxial, Darlington

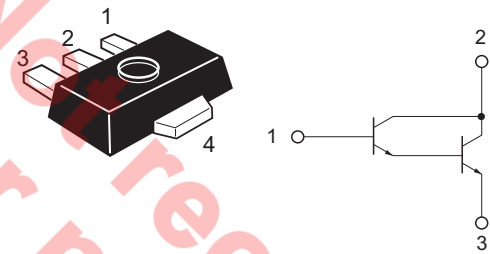
REJ03G0791-0200  
 (Previous ADE-208-1153)  
 Rev.2.00  
 Aug.10.2005

## Application

Low frequency power amplifier

## Outline

RENESAS Package code: PLZZ0004CA-A  
 (Package name: UPAK<sup>®</sup>)



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

Note: Marking is "AT".

\*UPAK is a trademark of Renesas Technology Corp.

## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	60	V
Collector to emitter voltage	$V_{CEO}$	60	V
Emitter to base voltage	$V_{EBO}$	7	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.  $PW \leq 10$  ms, Duty cycle  $\leq 20\%$   
 2. Value on the alumina ceramic board (12.5 x 30 x 0.7 mm)

## Electrical Characteristics

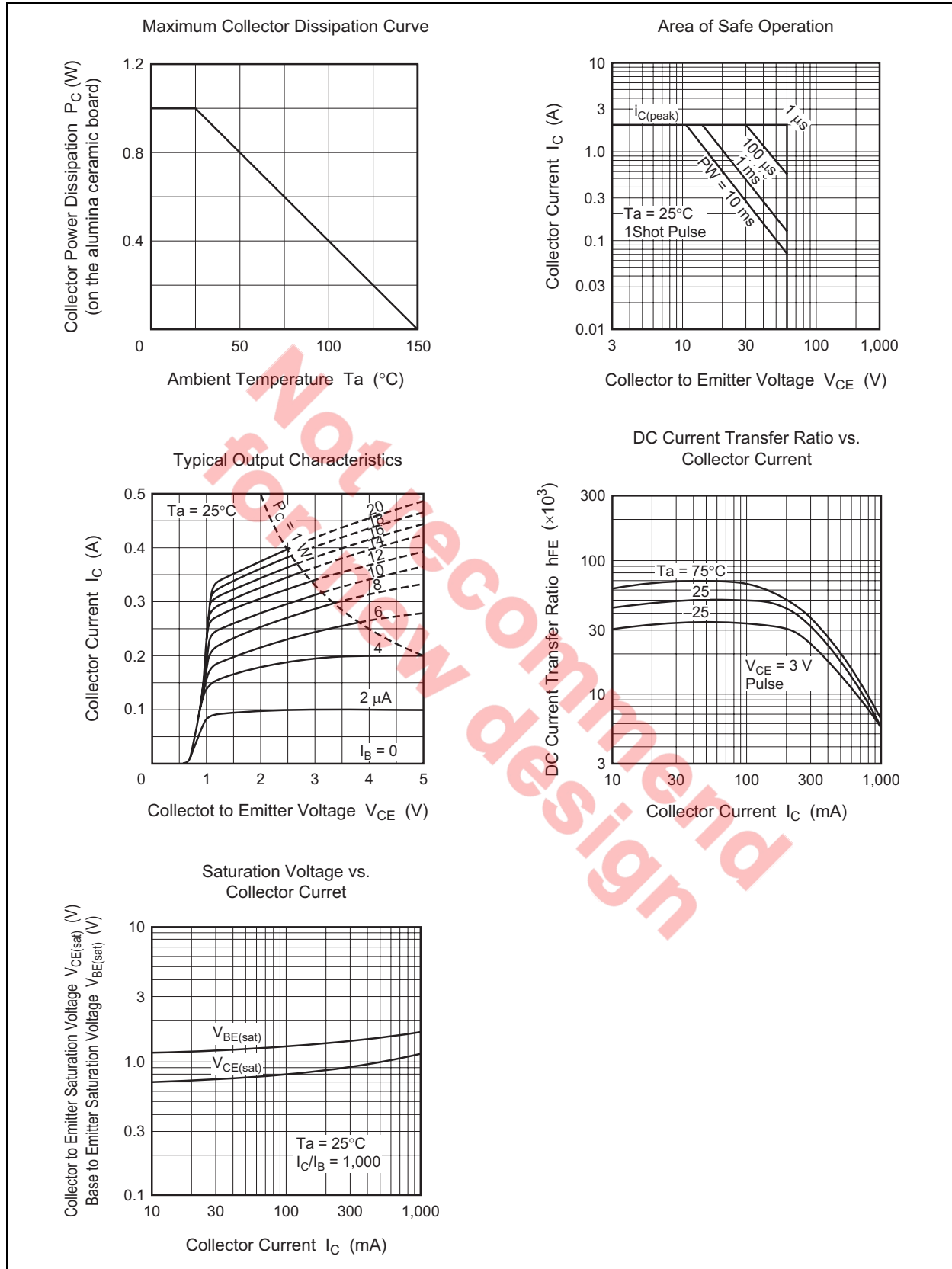
(Ta = 25°C)

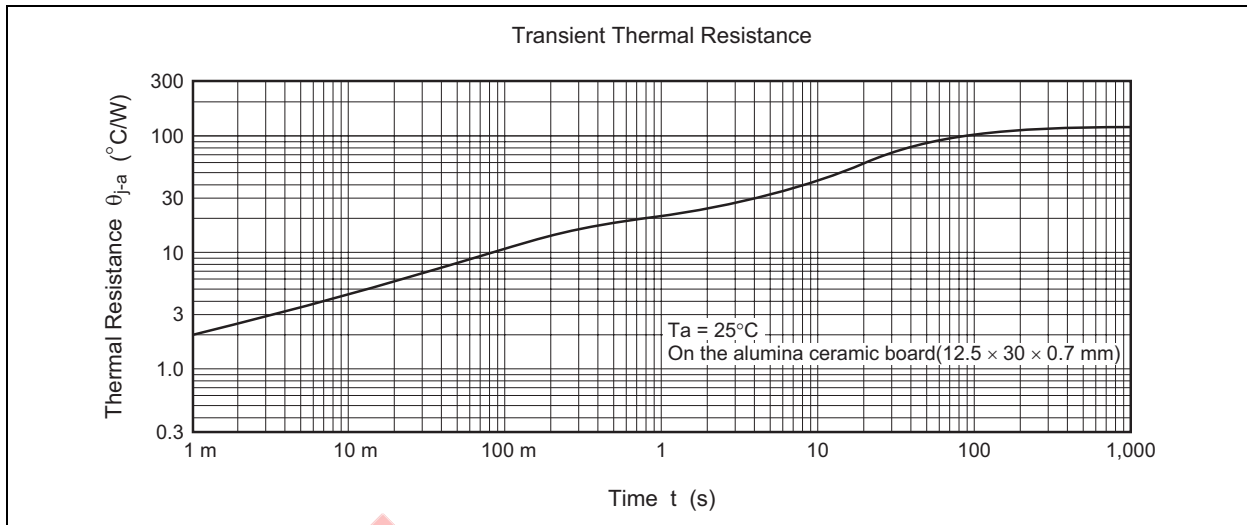
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	60	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	60	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	7	—	—	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	10	$\mu A$	$V_{CB} = 60 \text{ V}, I_E = 0$
Emitter cutoff current	$I_{EBO}$	—	—	10	$\mu A$	$V_{EB} = 7 \text{ V}, I_C = 0$
DC current transfer ratio	$h_{FE}$	2000	—	100000		$V_{CE} = 3 \text{ V}, I_C = 0.5 \text{ A}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.5	V	$I_C = 500 \text{ mA}, I_B = 0.5 \text{ mA}^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	2.0	V	$I_C = 500 \text{ mA}, I_B = 0.5 \text{ mA}^{*1}$

Notes: 1. Pulse test

Not recommend  
for new design

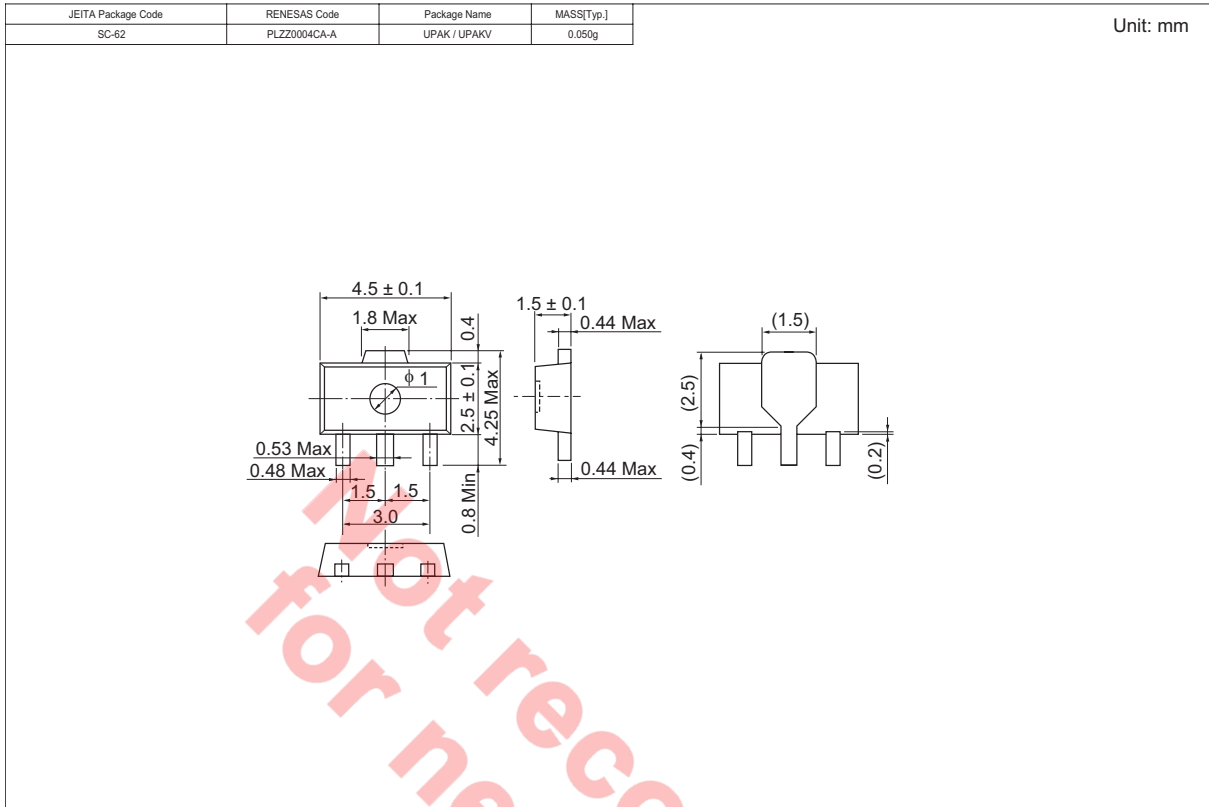
Main Characteristics





Not recommend  
for new design

## Package Dimensions



## Ordering Information

Part Name	Quantity	Shipping Container
2SD1470ATTR-E	1000	$\phi$ 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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Tel: <1> (408) 382-7500, Fax: <1> (408) 382-7501

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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.**

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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