

# 2SA1121

## Silicon PNP Epitaxial

R07DS0271EJ0400

Rev.4.00

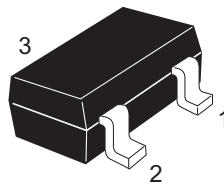
Jan 10, 2014

### Application

- Low frequency amplifier
- Complementary pair with 2SC2618

### Outline

RENESAS Package code: PLSP0003ZB-A  
(Package name: MPAK)



1. Emitter
2. Base
3. Collector

### Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	-35	V
Collector to emitter voltage	$V_{CEO}$	-35	V
Emitter to base voltage	$V_{EBO}$	-4	V
Collector current	$I_C$	-500	mA
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

## Electrical Characteristics

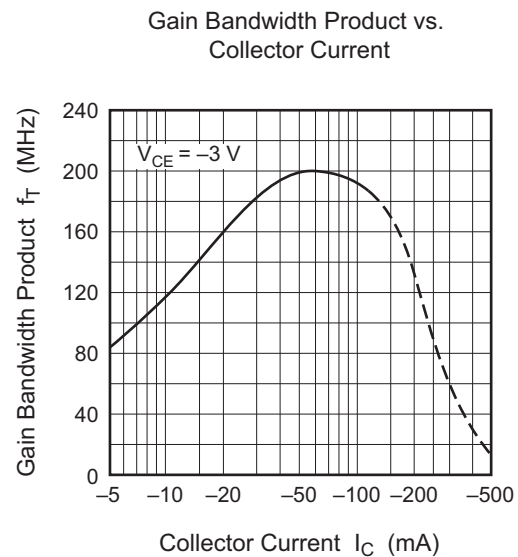
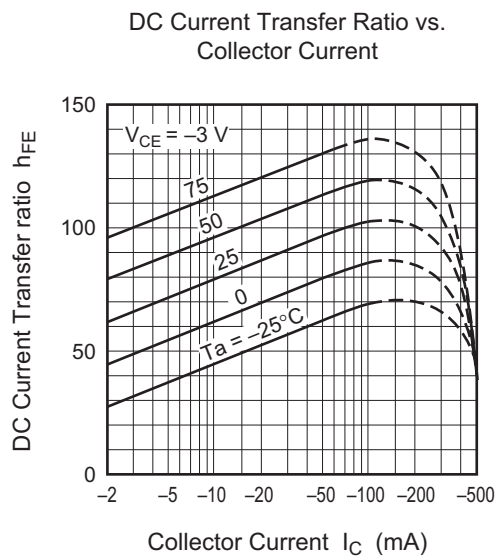
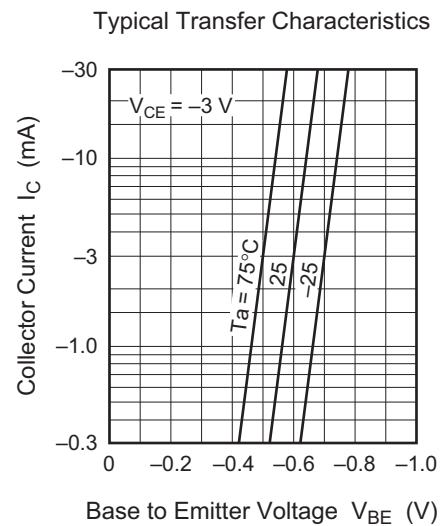
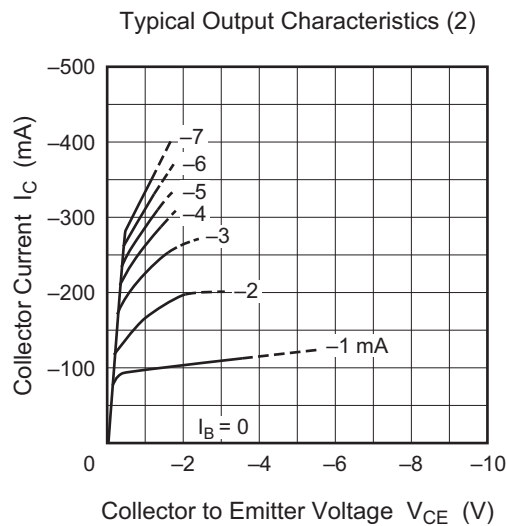
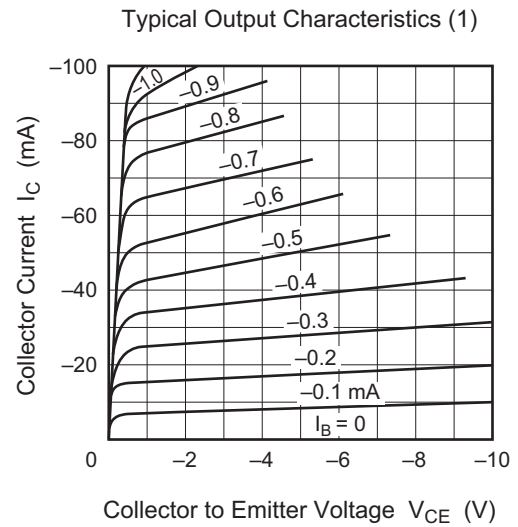
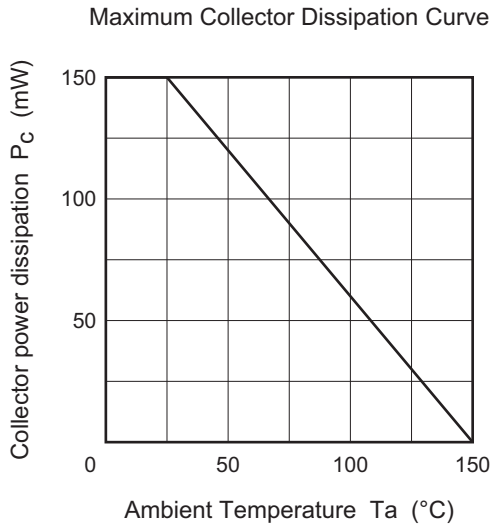
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-35	—	—	V	$I_C = -10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-35	—	—	V	$I_C = -1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-4	—	—	V	$I_E = -10 \mu A, I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	-0.5	$\mu A$	$V_{CB} = -20 \text{ V}, I_E = 0$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	-0.2	-0.6	V	$I_C = -150 \text{ mA}, I_B = -15 \text{ mA}$
DC current transfer ratio	$h_{FE}^{*1}$	100	—	320		$V_{CE} = -3 \text{ V}, I_C = -10 \text{ mA}$
	$h_{FE}$	10	—	—		$V_{CE} = -3 \text{ V}, I_C = -500 \text{ mA}$ (Pulse test)
Base to emitter voltage	$V_{BE}$	—	-0.64	—	V	$V_{CE} = -3 \text{ V}, I_C = -10 \text{ mA}$

Note: 1. The 2SA1121 is grouped by  $h_{FE}$  as follows.

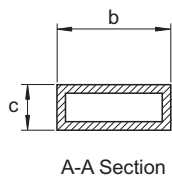
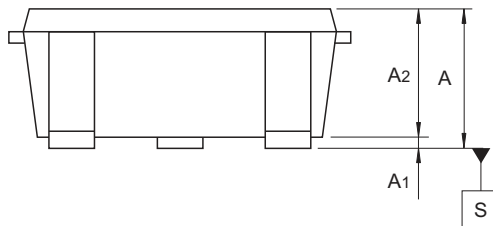
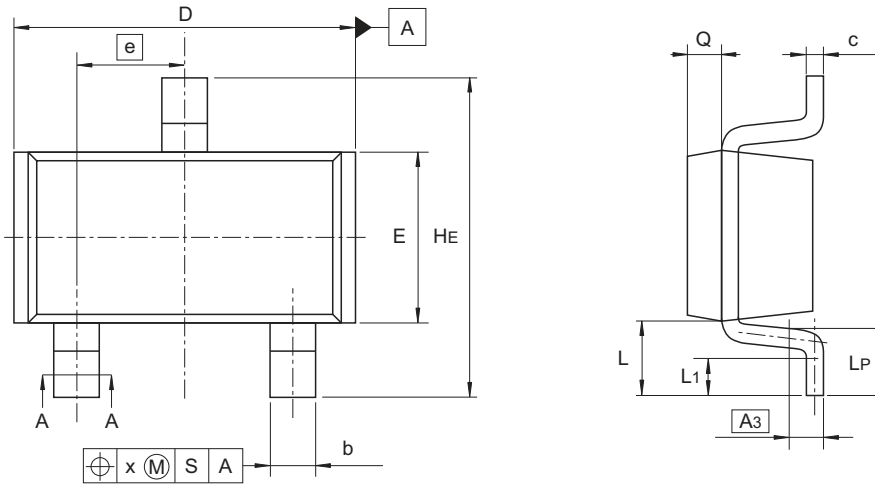
Grade	C	D
Mark	SC	SD
$h_{FE}$	100 to 200	160 to 320

Main Characteristics



Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS (Typ) [g]
SC-59A	PLSP0003ZB-A	MPAK(T) / MPAK(T)V	0.011



Reference Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	1.0	—	1.3
A1	0	—	0.1
A2	1.0	1.1	1.2
A3	—	0.25	—
b	0.35	0.4	0.5
c	0.1	0.16	0.26
D	2.7	—	3.1
E	1.35	1.5	1.65
e	—	0.95	—
HE	2.2	2.8	3.0
L	0.35	—	0.75
L1	0.15	—	0.55
LP	0.25	—	0.65
x	—	—	0.05
Q	—	0.3	—

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**Ordering Information**

Orderable Part Number	Quantity	Shipping Container
2SA1121SCTL-E 2SA1121SDTL-E 2SA1121SCTL-H 2SA1121SDTL-H	3000	φ 178 mm Reel, 8 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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2880 Scott Boulevard Santa Clara, CA 95050-2554, U.S.A.  
Tel: +1-408-586-6000, Fax: +1-408-588-6130

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1101 Nicholson Road, Newmarket, Ontario L3Y 9C3, Canada  
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**Renesas Electronics Europe Limited**  
Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K.  
Tel: +44-1628-651-700, Fax: +44-1628-651-804

**Renesas Electronics Europe GmbH**  
Arcadiastrasse 10, 40472 Düsseldorf, Germany  
Tel: +49-211-65030, Fax: +49-211-6503-1327

**Renesas Electronics (China) Co., Ltd.**  
7th Floor, Quantum Plaza, No.27 ZhiChunLu Haidian District, Beijing 100083, P.R.China  
Tel: +86-10-8235-1155, Fax: +86-10-8235-7679

**Renesas Electronics (Shanghai) Co., Ltd.**  
Unit 301, Tower A, Central Towers, 555 LanGao Rd., Putuo District, Shanghai, China  
Tel: +86-21-2226-0888, Fax: +86-21-2226-0999

**Renesas Electronics Hong Kong Limited**  
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Tel: +852-2886-9318, Fax: +852 2886-9022/9044

**Renesas Electronics Taiwan Co., Ltd.**  
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Tel: +886-2-8175-9600, Fax: +886 2-8175-9670

**Renesas Electronics Singapore Pte. Ltd.**  
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Tel: +60-3-7955-9390, Fax: +60-3-7955-9510

**Renesas Electronics Korea Co., Ltd.**  
12F., 234 Teheran-ro, Gangnam-Gu, Seoul, 135-080, Korea  
Tel: +82-2-558-3737, Fax: +82-2-558-5141