

# 2SC2618

## Silicon NPN Epitaxial

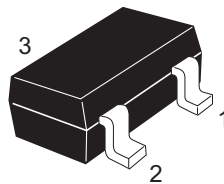
R07DS0273EJ0400  
Rev.4.00  
Jan 10, 2014

### Application

- Low frequency amplifier
- Complementary pair with 2SA1121

### 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

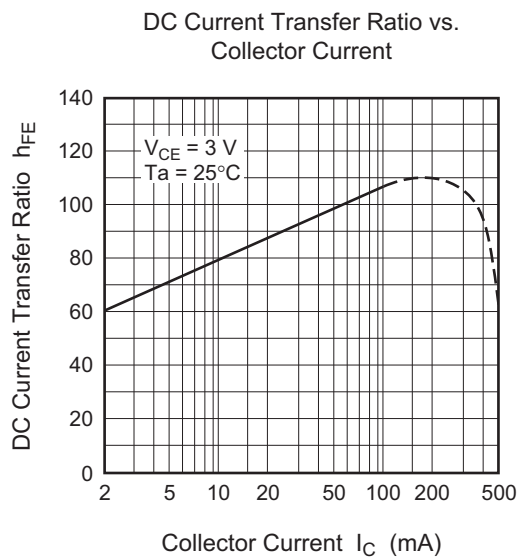
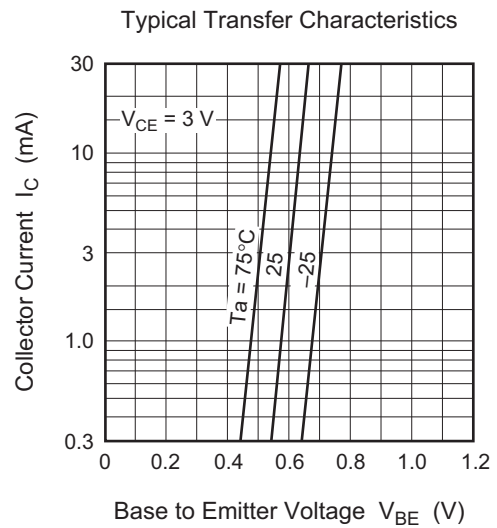
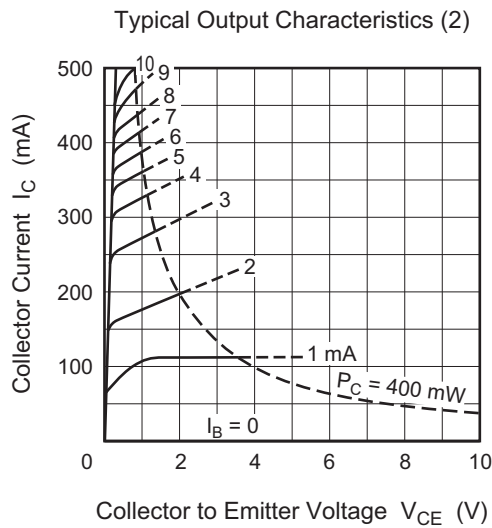
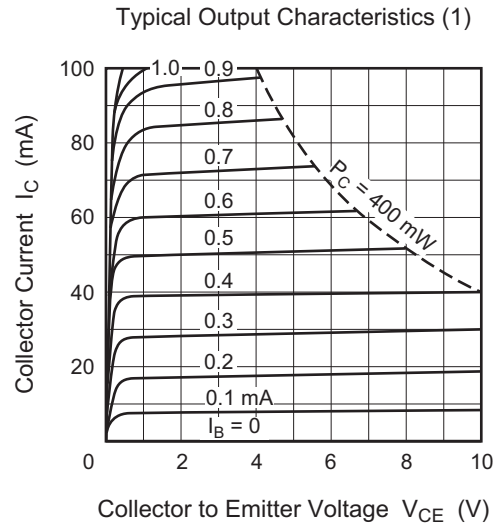
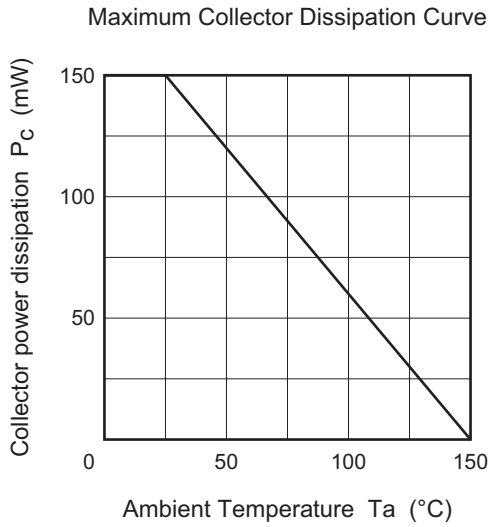
(Ta = 25°C)

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	$\mu A$	$V_{CB} = 20 \text{ V}, I_C = 0$
DC current transfer ratio	$h_{FE1}^{*1}$	100	—	320		$V_{CE} = 3 \text{ V}, I_C = 10 \text{ mA}$ (Pulse test)
	$h_{FE2}$	10	—	—		$V_{CE} = 3 \text{ V}, I_C = 500 \text{ mA}$ (Pulse test)
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	0.2	0.6	V	$I_C = 150 \text{ mA}, I_B = 15 \text{ mA}$ (Pulse test)
Base to emitter voltage	$V_{BE}$	—	0.64	—	V	$V_{CE} = 3 \text{ V}, I_C = 10 \text{ mA}$ (Pulse test)

Note: 1. The 2SC2618 is grouped by  $h_{FE1}$  as follows.

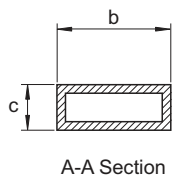
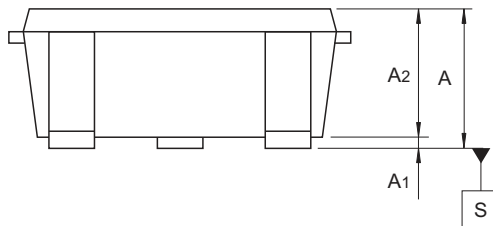
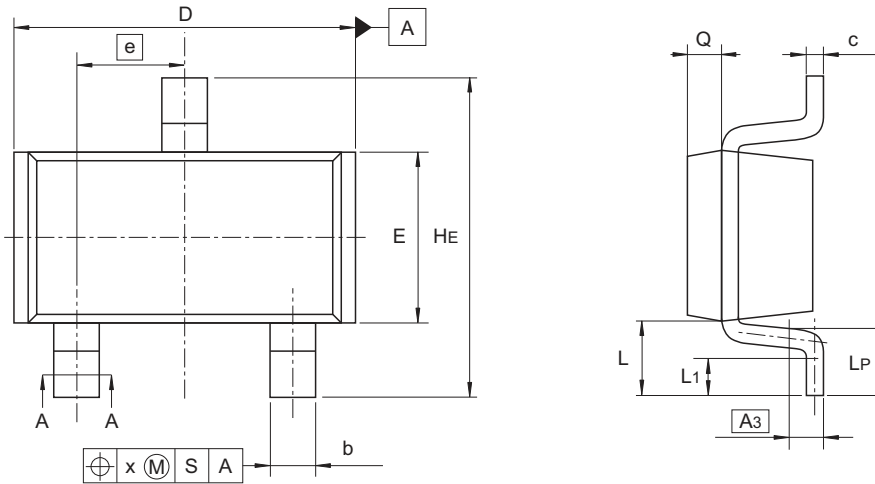
Grade	C	D
Mark	RC	RD
$h_{FE1}$	100 to 200	160 to 320

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
2SC2618RCTL-E 2SC2618RDTL-E 2SC2618RCTL-H 2SC2618RDTL-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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