2SC2618

Silicon NPN Epitaxial

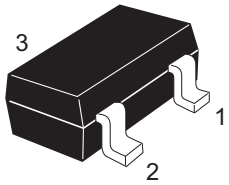
REJ03G0702-0200
(Previous ADE-208-1069)
Rev.2.00
Aug.10.2005

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	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Electrical Characteristics

(Ta = 25°C)

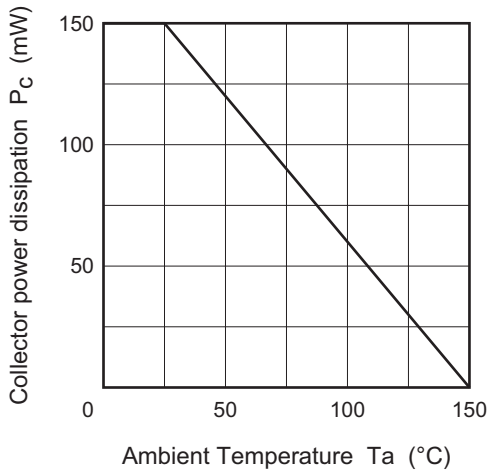
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	35	—	—	V	I_C = 10 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	35	—	—	V	I_C = 1 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	4	—	—	V	I_E = 10 µA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	0.5	µA	V_{CB} = 20 V, I_C = 0
DC current transfer ratio	h_{FE1}*[1]	100	—	320		V_{CE} = 3 V, I_C = 10 mA (Pulse test)
	h_{FE2}	10	—	—		V_{CE} = 3 V, I_C = 500 mA (Pulse test)
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	0.2	0.6	V	I_C = 150 mA, I_B = 15 mA (Pulse test)
Base to emitter voltage	V_{BE}	—	0.64	—	V	V_{CE} = 3 V, I_C = 10 mA (Pulse test)

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

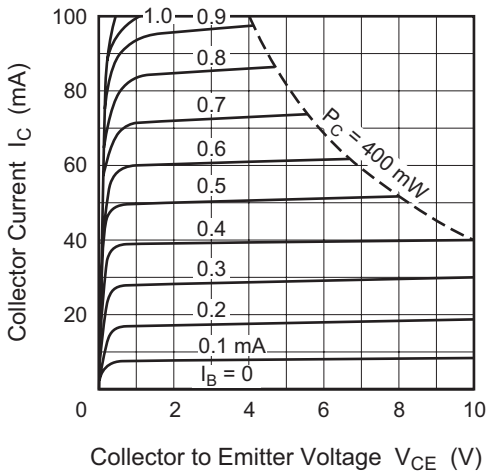
Grade	C	D
Mark	RC	RD
h_{FE1}	100 to 200	160 to 320

Main Characteristics

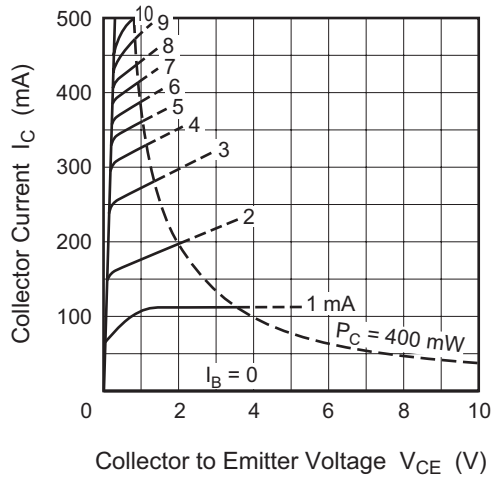
Maximum Collector Dissipation Curve



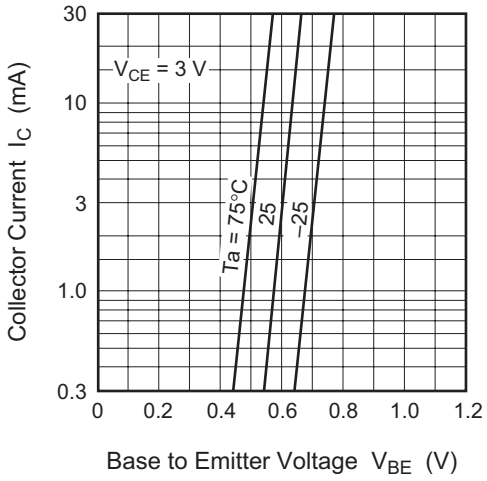
Typical Output Characteristics (1)



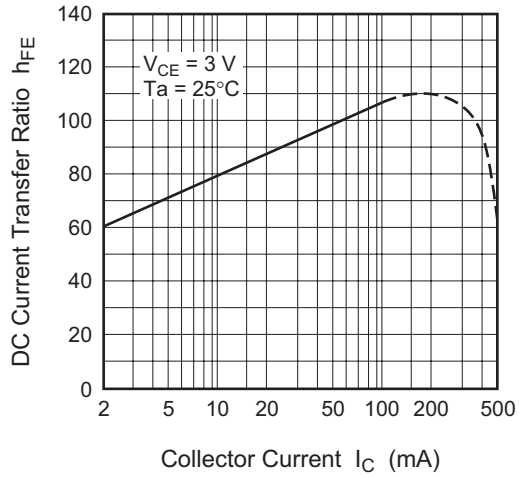
Typical Output Characteristics (2)



Typical Transfer Characteristics

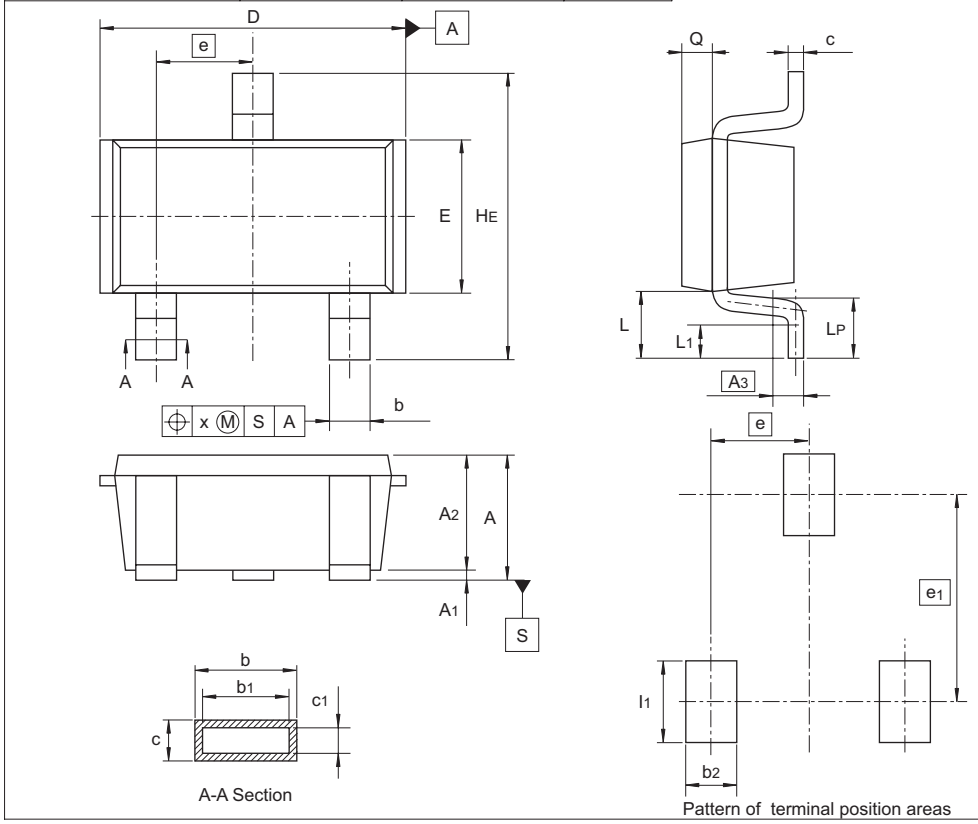


DC Current Transfer Ratio vs. Collector Current



Package Dimensions

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



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	1.0	—	1.3
A_1	0	—	0.1
A_2	1.0	1.1	1.2
$\boxed{A_3}$	—	0.25	—
b	0.35	0.42	0.5
b_1	—	0.4	—
c	0.1	0.13	0.15
c_1	—	0.11	—
D	2.7	—	3.1
E	1.35	1.5	1.65
$\boxed{e}$	—	0.95	—
H_E	2.2	2.8	3.0
L	0.35	—	0.75
L_1	0.15	—	0.55
L_P	0.25	—	0.65
x	—	—	0.05
b_2	—	—	0.55
$\boxed{e_1}$	—	1.95	—
l_1	—	—	1.05
Q	—	0.3	—

Ordering Information

Part Name	Quantity	Shipping Container
2SC2618RCTL-E 2SC2618RDTL-E	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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