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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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Not recommended
for new design

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2SC2462

Silicon NPN Epitaxial

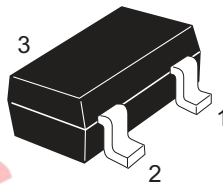
REJ03G0697-0200
 (Previous ADE-208-1063)
 Rev.2.00
 Aug.10.2005

Application

Low frequency amplifier

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}	50	V
Collector to emitter voltage	V_{CEO}	40	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	100	mA
Emitter current	I_E	-100	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)

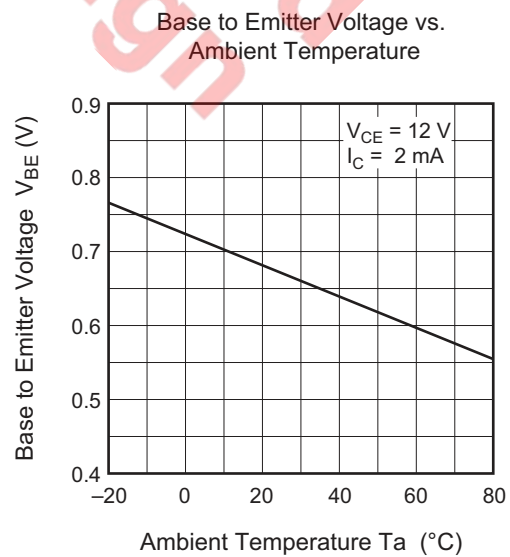
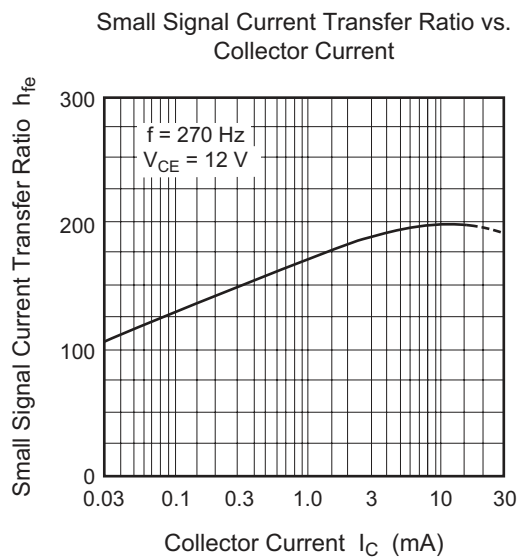
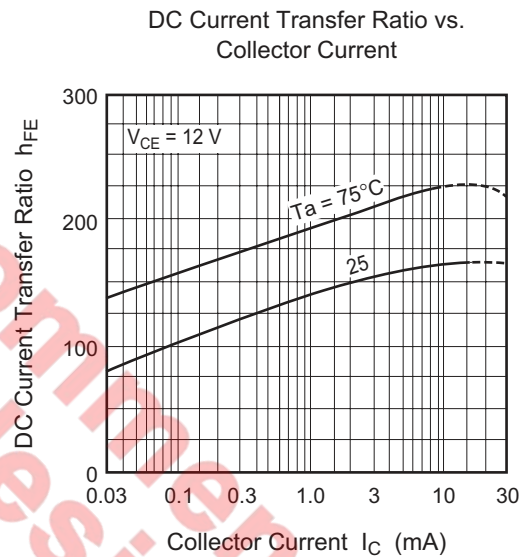
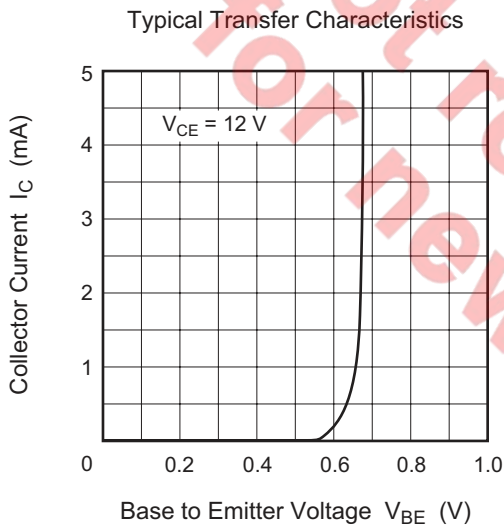
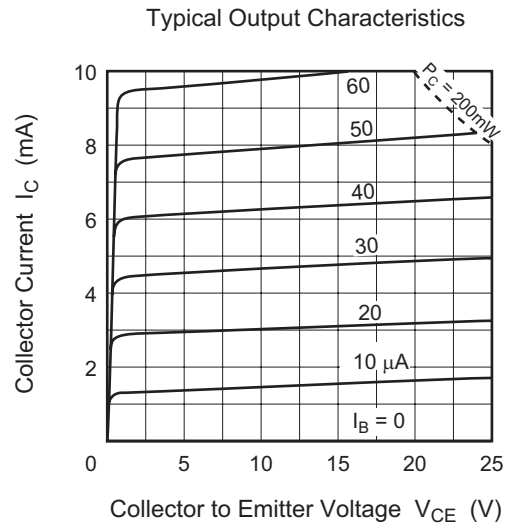
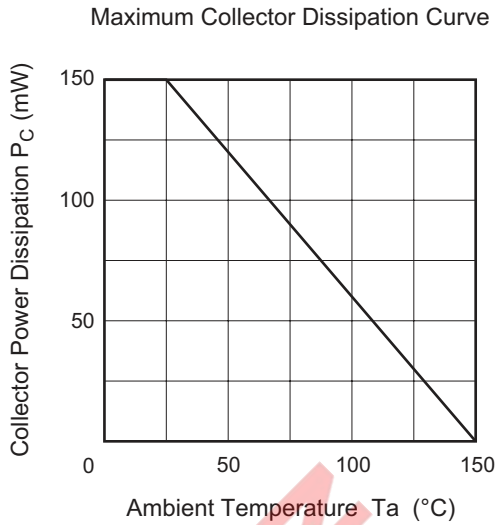
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	50	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	40	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	0.5	μA	$V_{CB} = 30 \text{ V}, I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	0.5	μA	$V_{EB} = 2 \text{ V}, I_C = 0$
DC current transfer ratio	h_{FE}^{*1}	100	—	500		$V_{CE} = 12 \text{ V}, I_C = 2 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.2	V	$I_C = 10 \text{ mA}, I_B = 1 \text{ mA}$
Base to emitter voltage	V_{BE}	—	—	0.75	V	$V_{CE} = 12 \text{ V}, I_C = 2 \text{ mA}$

Note: 1. The 2SC2462 is grouped by h_{FE} as follows.

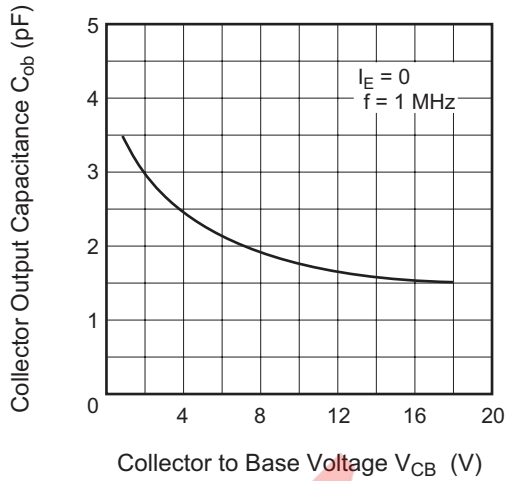
Grade	B	C	D
Mark	LB	LC	LD
h_{FE}	100 to 200	160 to 320	250 to 500

Not recommend
for new design

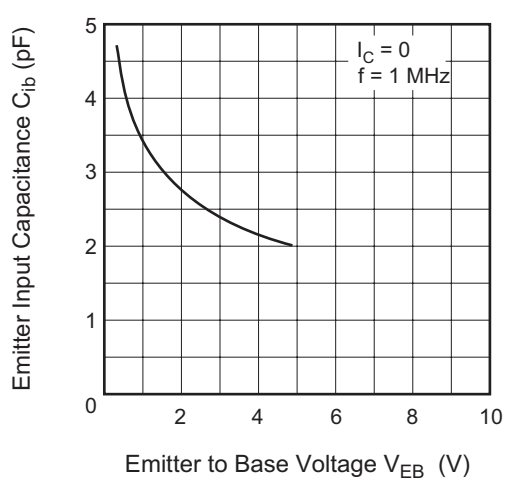
Main Characteristics



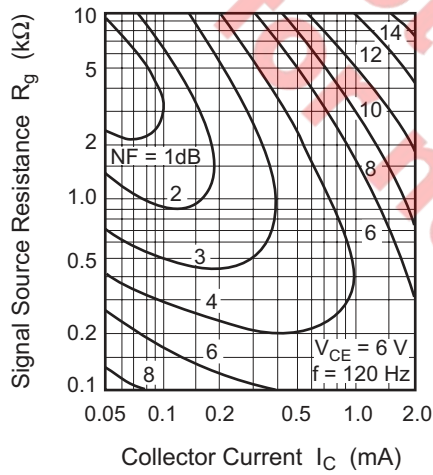
Collector Output Capacitance vs. Collector to Base Voltage



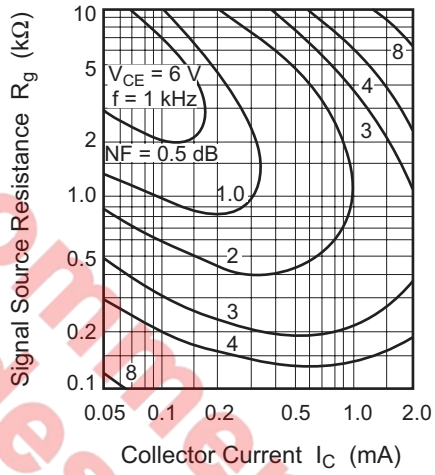
Emitter Input Capacitance vs. Emitter to Base Voltage



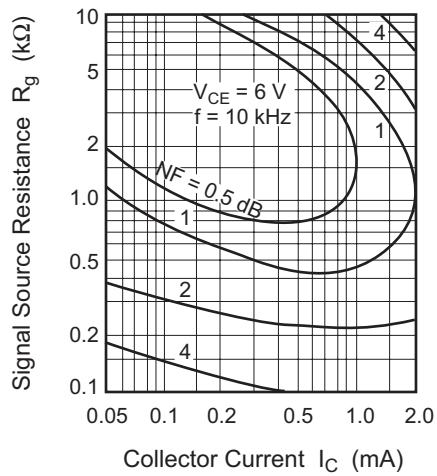
Contours of Constant Noise Figure



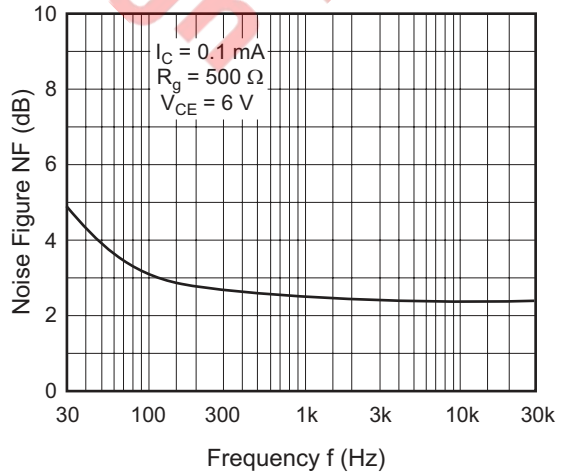
Contours of Constant Noise Figure



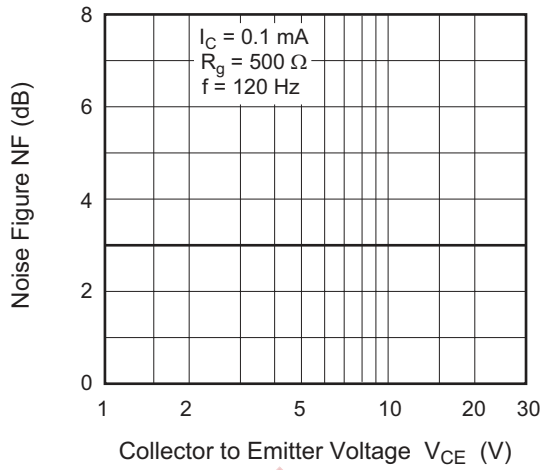
Contours of Constant Noise Figure



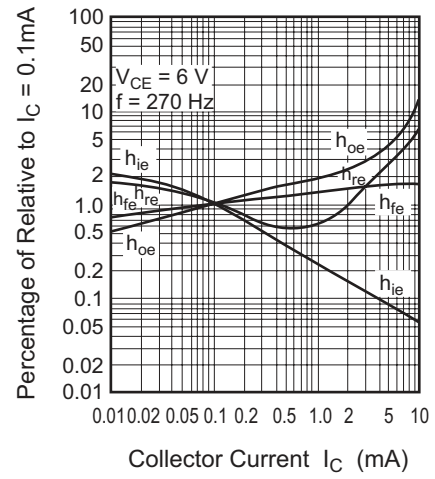
Noise Figure vs. Frequency



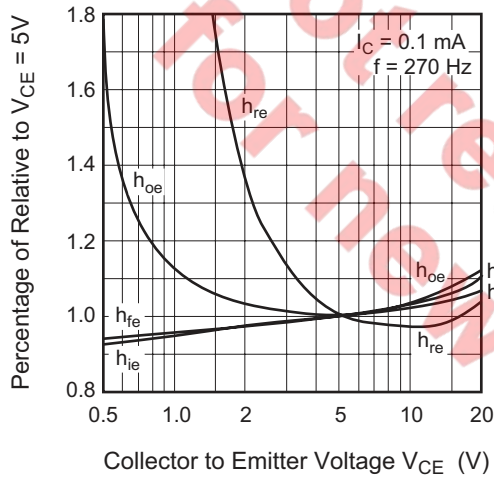
Noise Figure vs. Collector to Emitter Voltage



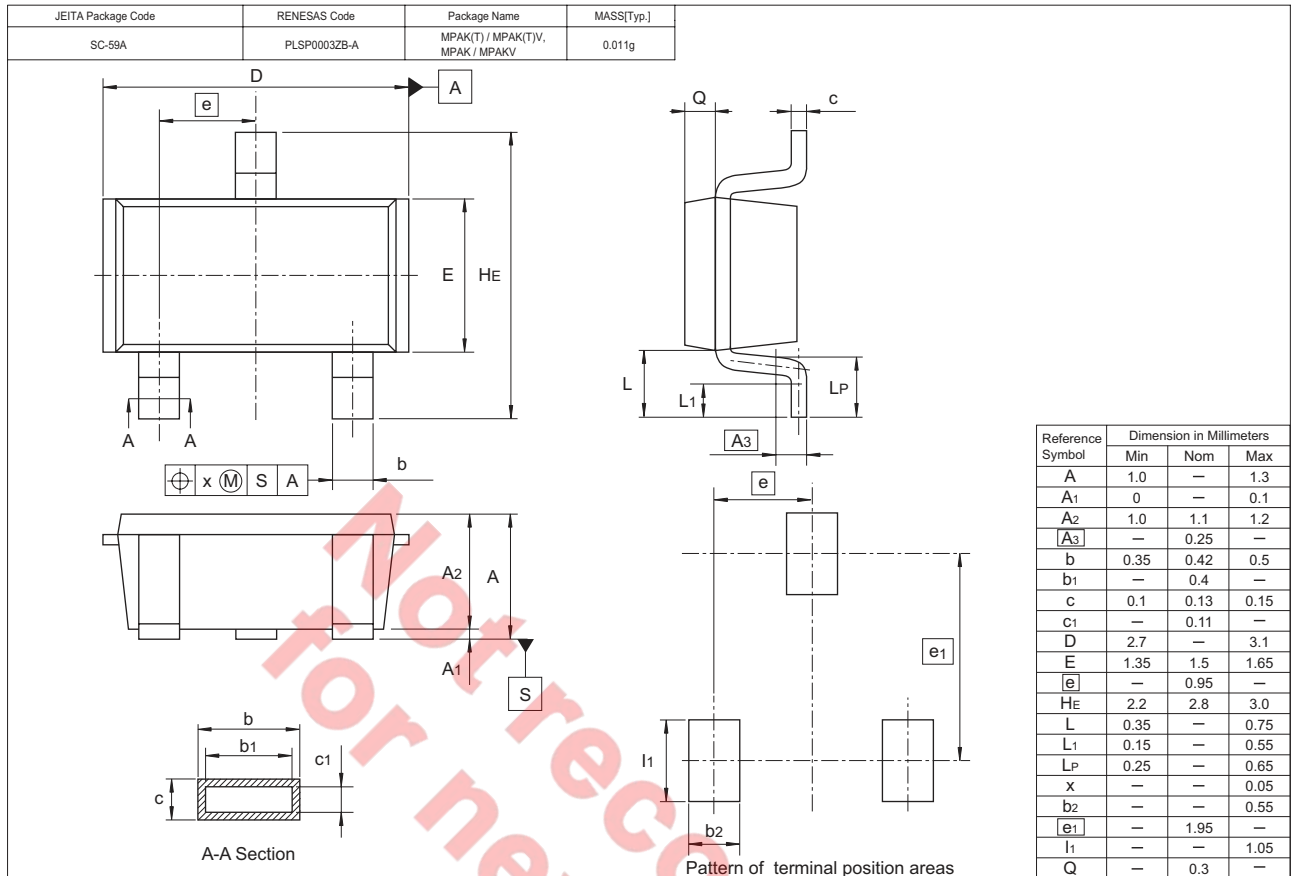
h Parameter vs. Collector Current



h Parameter vs. Collector to Emitter Voltage



Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SC2462LBTL-E	3000	φ 178 mm Reel, 8 mm Emboss Taping
2SC2462LCTL-E		
2SC2462LDTL-E		

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