

2SB561

Silicon PNP Epitaxial

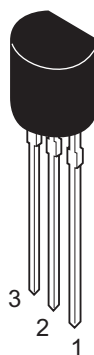
REJ03G0645-0200
 (Previous ADE-208-1023)
 Rev.2.00
 Aug.10.2005

Application

- Low frequency power amplifier
- Complementary pair with 2SD467

Outline

RENESAS Package code: PRSS0003DA-A
 (Package name: TO-92 (1))



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings

($T_a = 25^\circ\text{C}$)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-25	V
Collector to emitter voltage	V_{CEO}	-20	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-0.7	A
Collector peak current	$i_{C(\text{peak})}$	-1.0	A
Collector power dissipation	P_C	0.5	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics

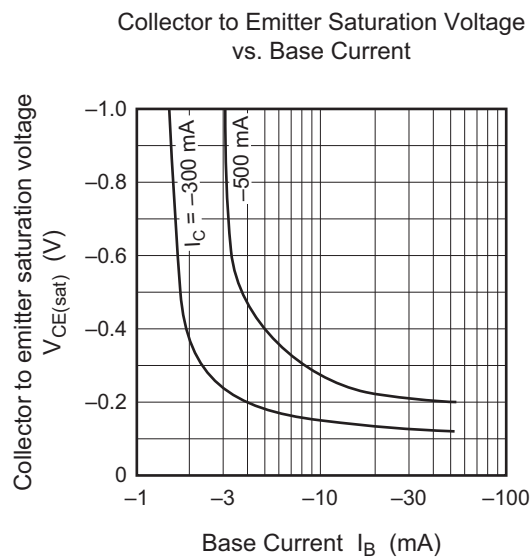
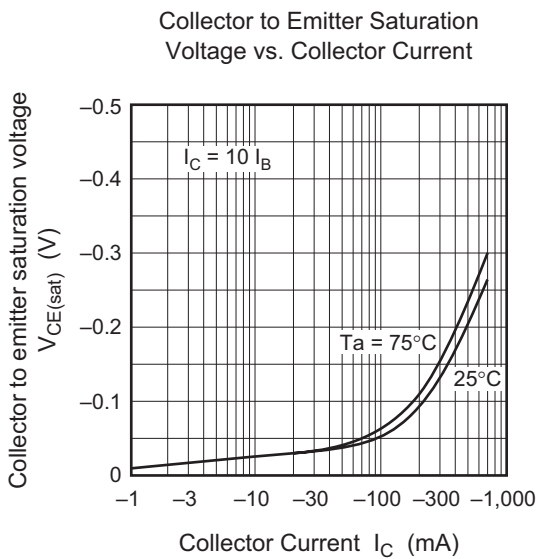
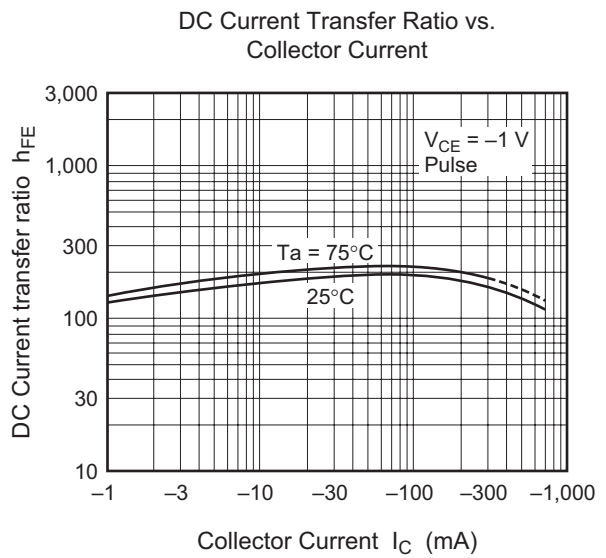
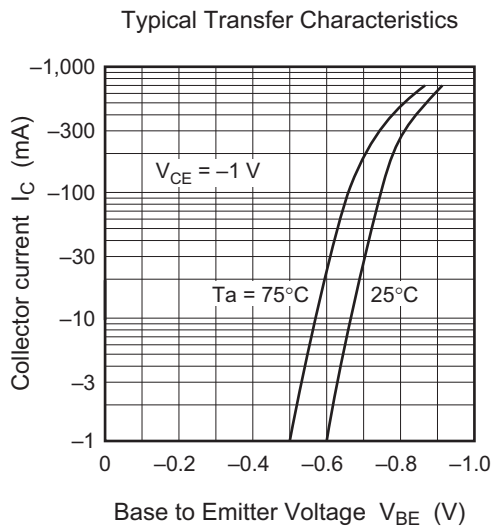
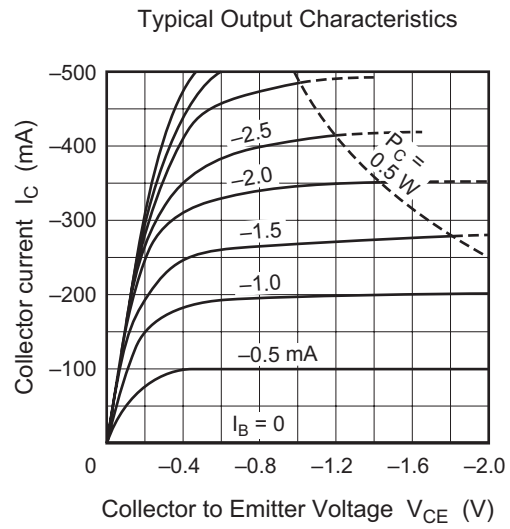
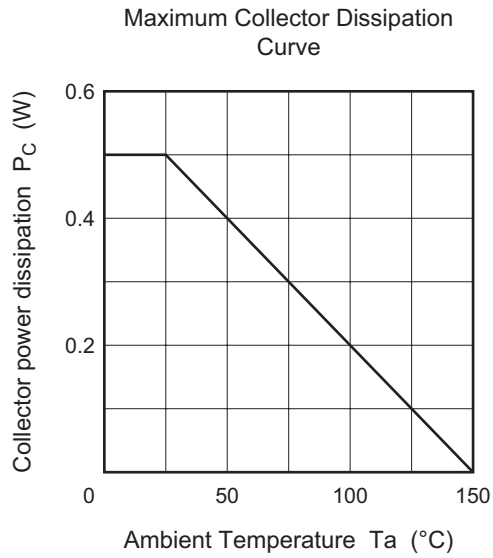
(Ta = 25°C)

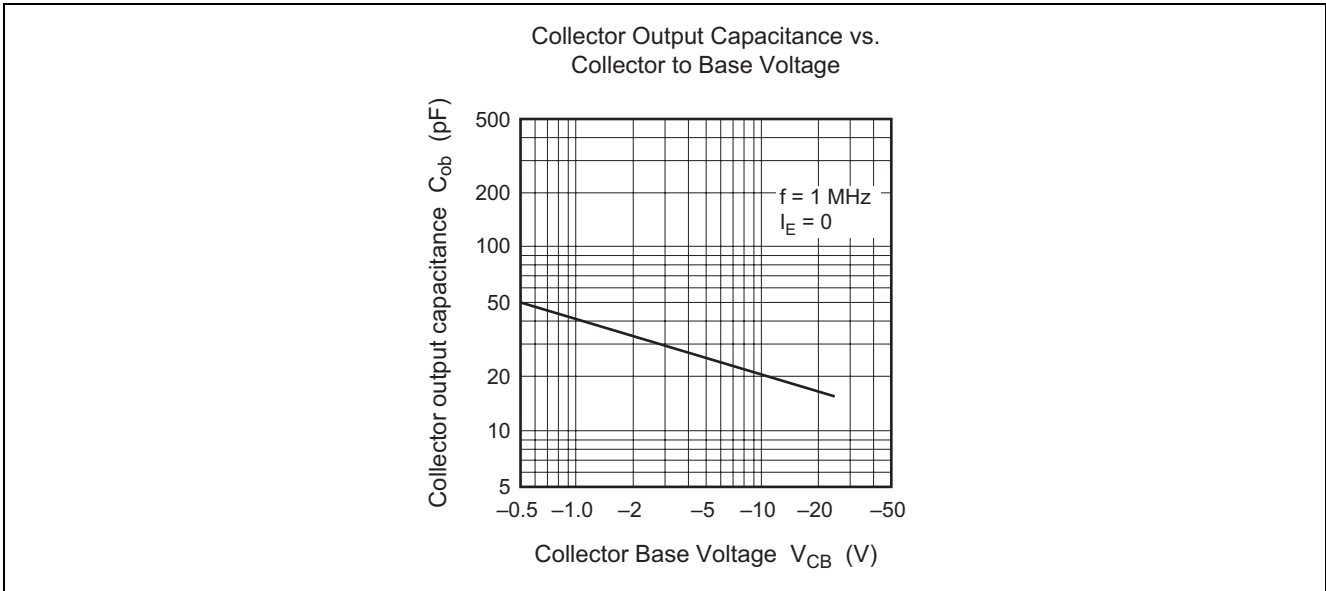
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-25	—	—	V	$I_C = -10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-20	—	—	V	$I_C = -1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-5	—	—	V	$I_E = -10 \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-1.0	μA	$V_{CB} = -20 \text{ V}, I_E = 0$
DC current transfer ratio	h_{FE}^{*1}	85	—	240		$V_{CE} = -1 \text{ V},$ $I_C = -0.15 \text{ A}$ (Pulse test)
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	-0.2	-0.5	V	$I_C = -0.5 \text{ A}, I_B = -0.05 \text{ A}$
Base to emitter voltage	V_{BE}	—	-0.75	-1.0	V	$V_{CE} = -1 \text{ V}, I_C = -0.15 \text{ A}$
Gain bandwidth product	f_T	—	350	—	MHz	$V_{CE} = -1 \text{ V}, I_C = -0.15 \text{ A}$
Collector output capacitance	C_{ob}	—	20	—	pF	$V_{CB} = -10 \text{ V}, I_E = 0$ $f = 1 \text{ MHz}$

Note: 1. The 2SB561 is grouped by h_{FE} as follows.

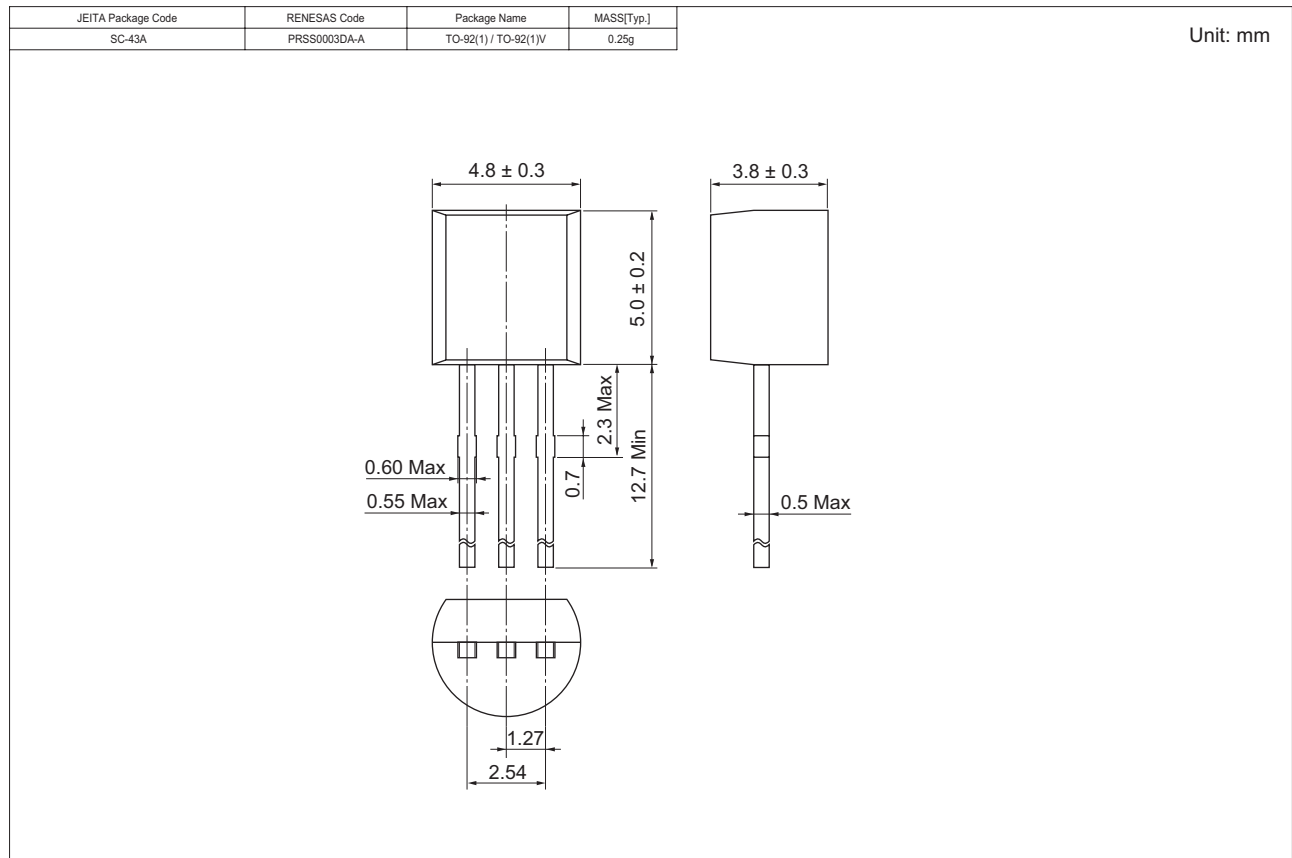
B	C
85 to 170	120 to 240

Main Characteristics





Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SB561BTZ-E 2SB561CTZ-E	2500	Hold Box, Radial 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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