2SB561

Silicon PNP Epitaxial

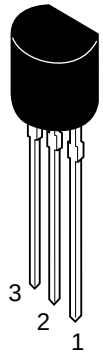
HITACHI

Application

- Low frequency power amplifier
- Complementary pair with 2SD467

Outline

TO-92 (1)



1. Emitter
2. Collector
3. Base

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Absolute Maximum Ratings (Ta = 25°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	$i_{C(peak)}$	–1.0	A
Collector power dissipation	P_C	0.5	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

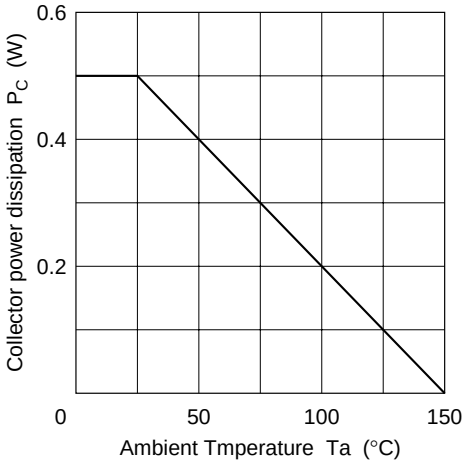
Electrical Characteristics (Ta = 25°C)

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

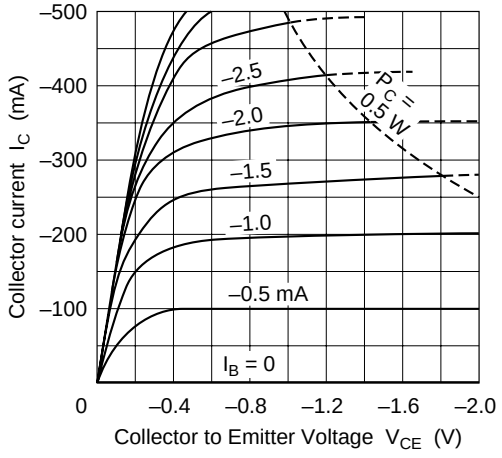
Note: 1. The 2SB561 is grouped by h_{FE} as follows.

B	C
85 to 170	120 to 240

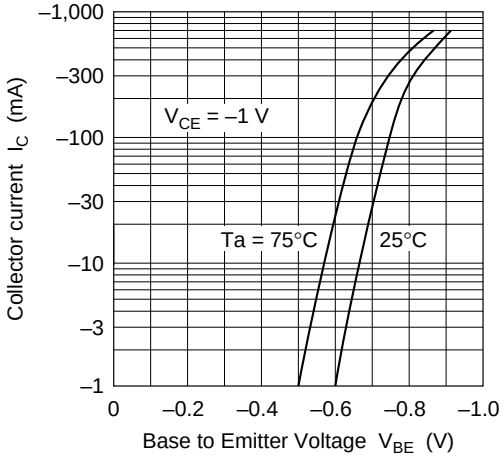
Maximum Collector Dissipation Curve



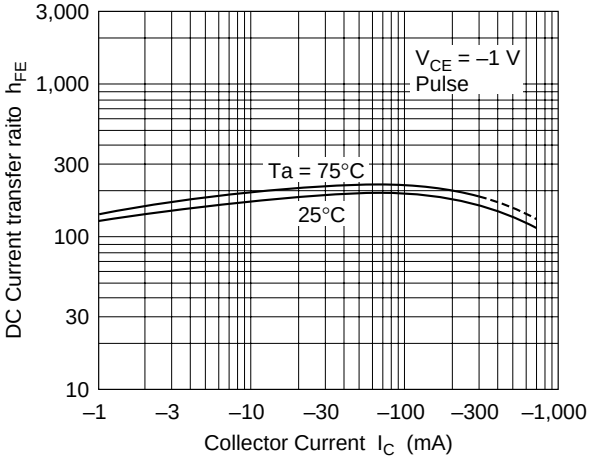
Typical Output Characteristics



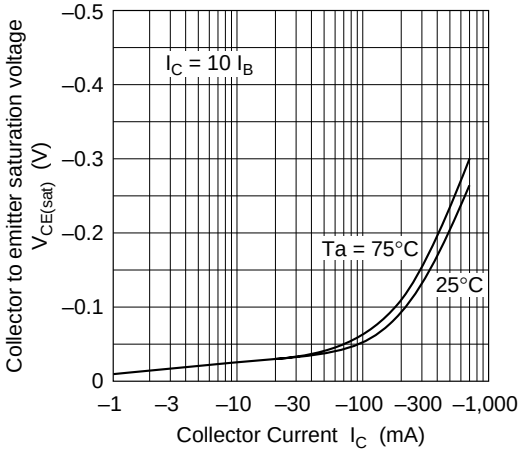
Typical Transfer Characteristics



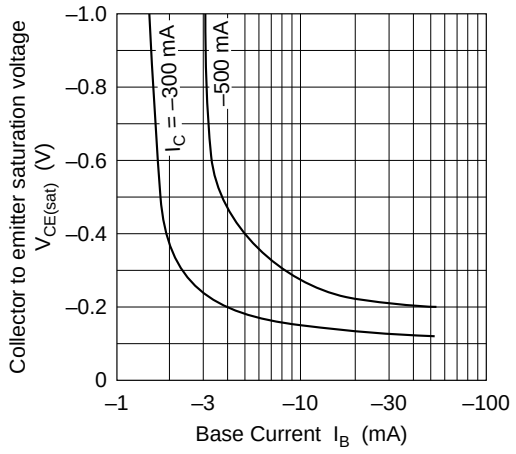
DC Current Transfer Ratio vs. Collector Current



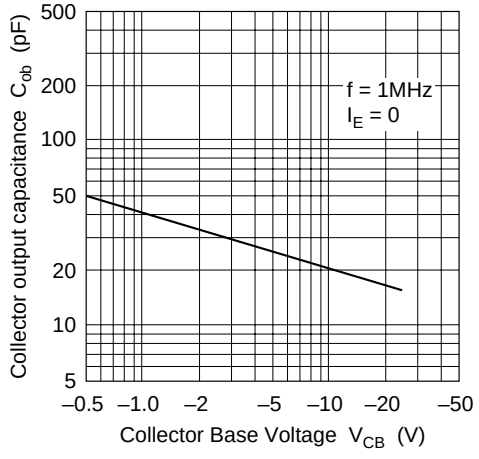
Collector to Emitter Saturation Voltage vs. Collector Current



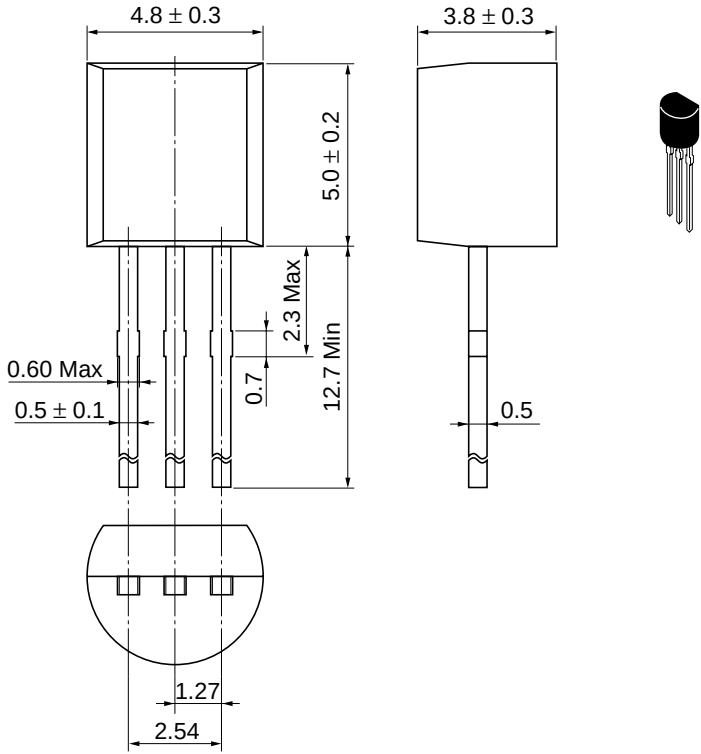
Collector to Emitter Saturation Voltage vs. Base Current



Collector Output Capacitance vs. Collector to Base Voltage



Unit: mm



Hitachi Code	TO-92 (1)
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.25 g

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