2SB861

Silicon PNP Triple Diffused

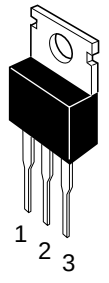
HITACHI

Application

Low frequency power amplifier color TV vertical deflection output complementary pair with 2SD1138

Outline

TO-220AB



1. Base
2. Collector (Flange)
3. Emitter

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	–200	V
Collector to emitter voltage	V_{CEO}	–150	V
Emitter to base voltage	V_{EBO}	–6	V
Collector current	I_C	–2	A
Collector peak current	$I_{C(peak)}$	–5	A
Collector power dissipation	P_C	1.8	W
	P_C*[1]	30	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–45 to +150	°C

Note: 1. Value at T_C = 25°C

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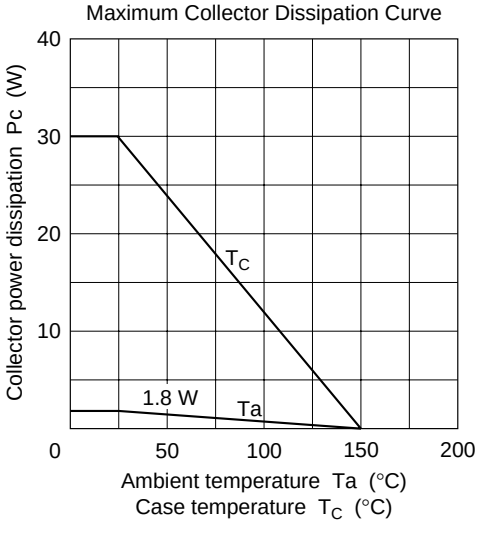
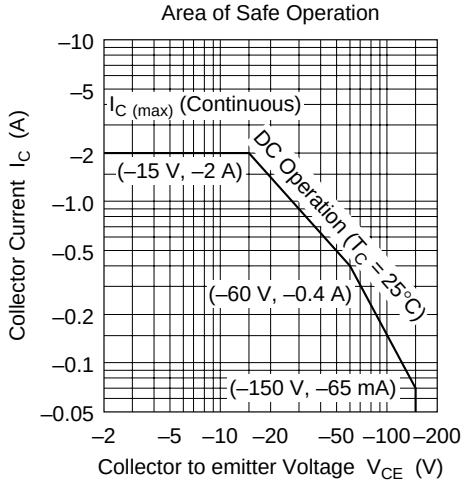
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CBO}$	–150	—	—	V	I_C = –50 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	–6	—	—	V	I_E = –5 mA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	–1	µA	V_{CB} = –120 V, I_E = 0
DC current transfer ratio	h_{FE1}*[1]	60	—	200		V_{CE} = –4 V, I_C = –50 mA
	h_{FE2}	60	—	—		V_{CE} = –10 V, I_C = –500 mA*[2]
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	–3	V	I_C = –500 mA, I_B = –50 mA
Base to emitter voltage	V_{BE}	—	—	–1	V	V_{CE} = –4 V, I_C = –50 mA
Collector output capacitance	Cob	—	30	—	pF	V_{CB} = –100 V, I_E = 0, f = 1 MHz

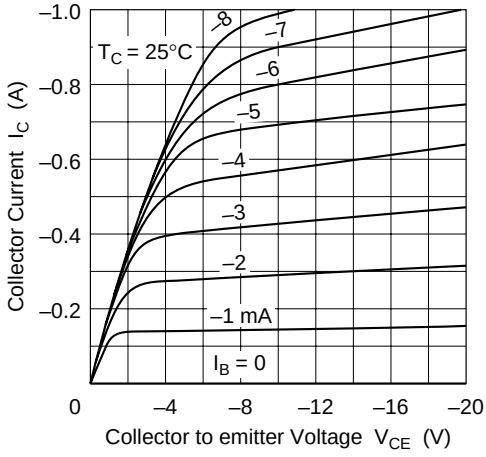
Notes: 1. The 2SB861 is grouped by h_{FE1} as follows.
2. Pulse test

B	C
60 to 120	100 to 200

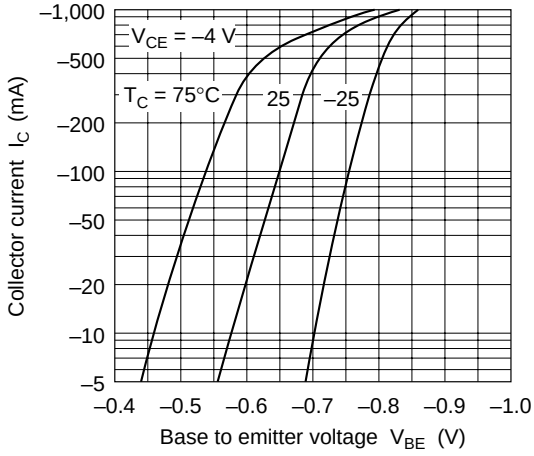




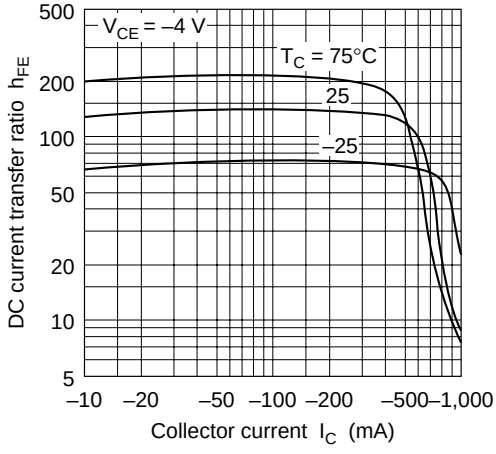
Typical Output Characteristics



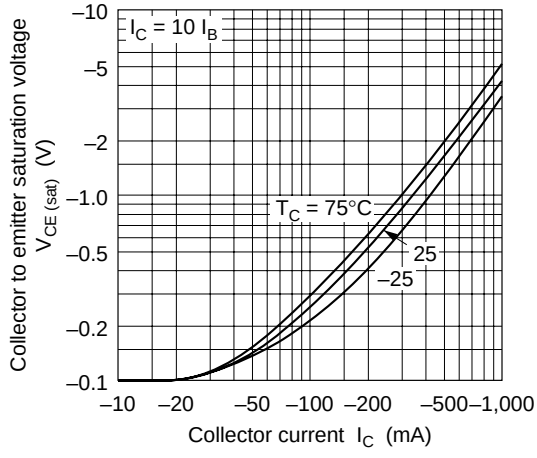
Typical Transfer Characteristics



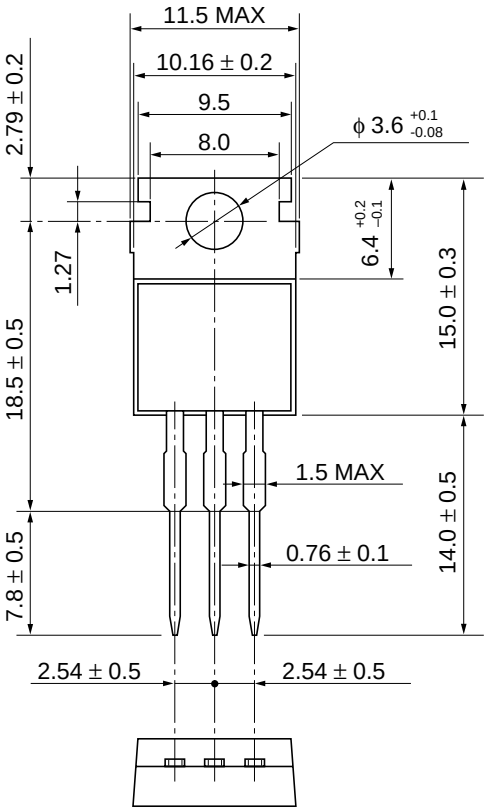
DC Current Transfer Ratio vs. Collector Current

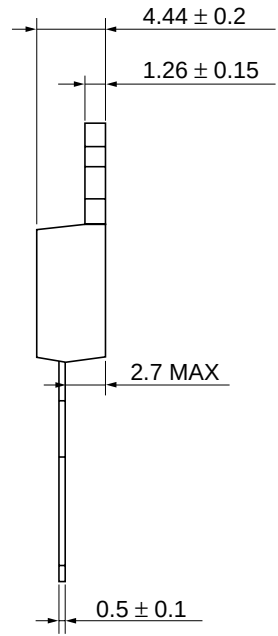


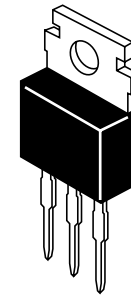
Collector to Emitter Saturation Voltage vs. Collector Current



Unit: mm







Hitachi Code	TO-220AB
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	1.8 g

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