2SD1137

Silicon NPN Triple Diffused

HITACHI

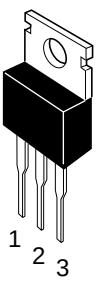
ADE-208-907 (Z)
1st. Edition
Sep. 2000

Application

Low frequency power amplifier TV vertical deflection output complementary pair with 2SB860

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}	100	V
Collector to emitter voltage	V_{CEO}	100	V
Emitter to base voltage	V_{EBO}	4	V
Collector current	I_C	4	A
Collector peak current	$I_{C\ (peak)}$	5	A
Collector power dissipation	P_C	1.8	W
	P_C*[1]	40	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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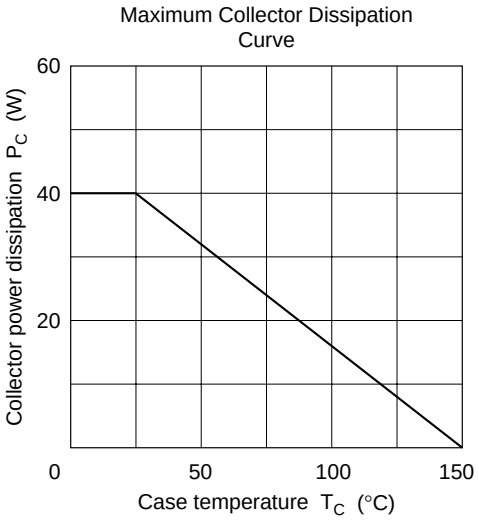
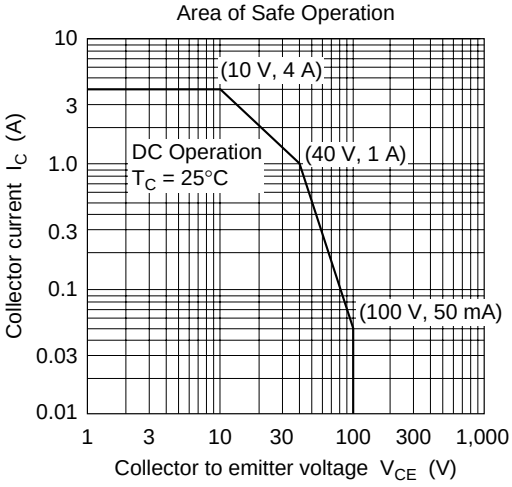
Electrical Characteristics (Ta = 25°C)

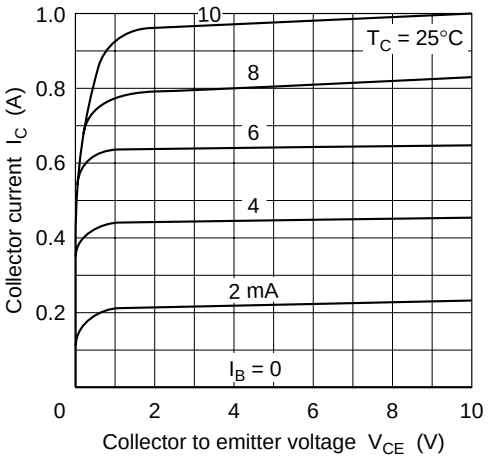
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	100	—	—	V	I_C = 10 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	4	—	—	V	I_E = 1 mA, I_C = 0
Collector cutoff current	I_{CEO}	—	—	100	µA	V_{CE} = 80 V, R_{BE} = ∞
Emitter cutoff current	I_{EBO}	—	—	50	µA	V_{EB} = 3.5 V, I_C = 0
DC current transfer ratio	h_{FE}	50	—	250		V_{CE} = 4 V, I_C = 0.5 A*[1]
		25	—	350		V_{CE} = 4 V, I_C = 50 mA
Collector to emitter saturation voltage	$V_{CE\ (sat)}$	—	—	1.0	V	I_C = 1 A, I_B = 0.1 A

Note: 1. Pulse test.

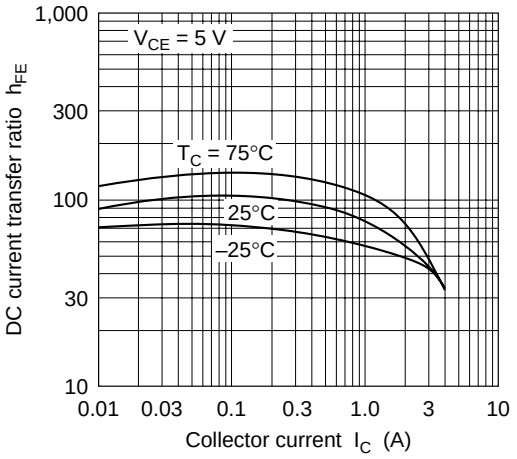




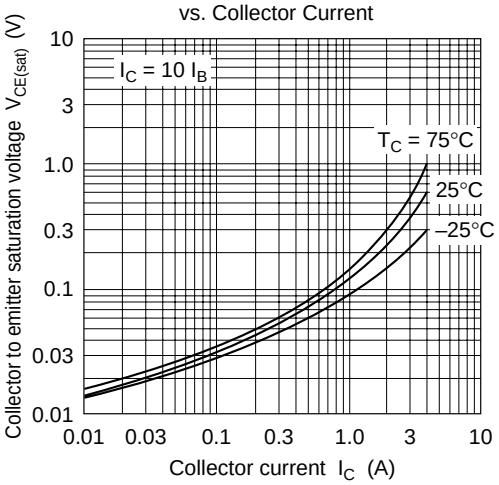
Typical Output Characteristecs



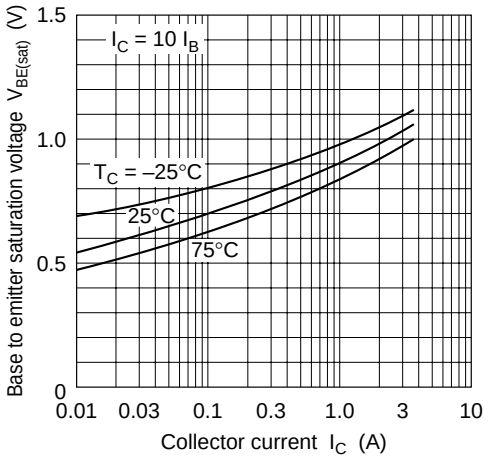
DC Current Transfer Ratio vs. Collector Current



Collector to Emitter Saturation Voltage vs. Collector Current

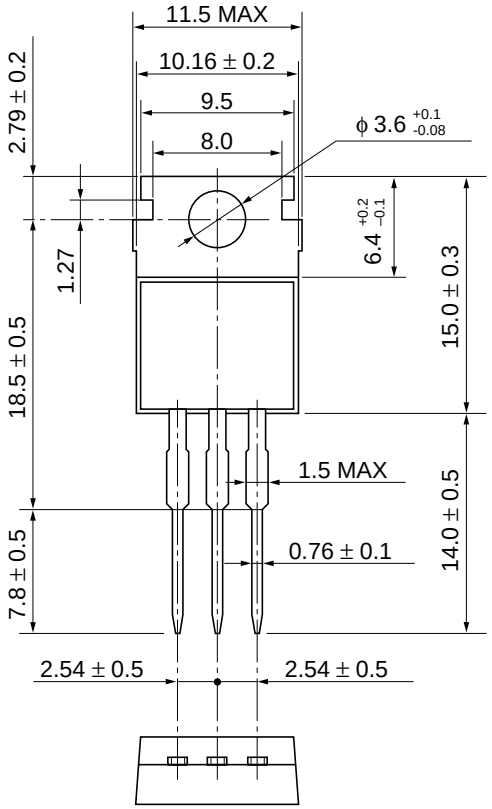


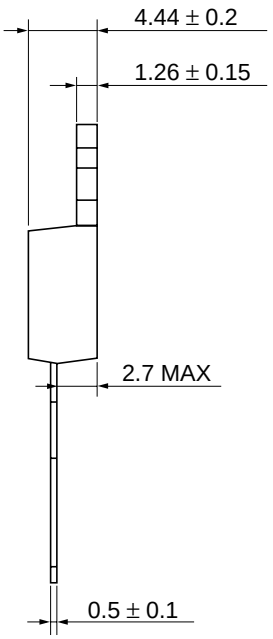
Base to Emitter Saturation Voltage vs. Collector Current

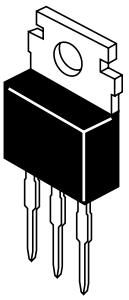


Package Dimensions

Unit: mm







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

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