

# 2SD1137

Silicon NPN Triple Diffused

# HITACHI

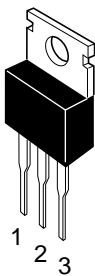
ADE-208-907 (Z)  
1st. Edition  
Sep. 2000

## 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)

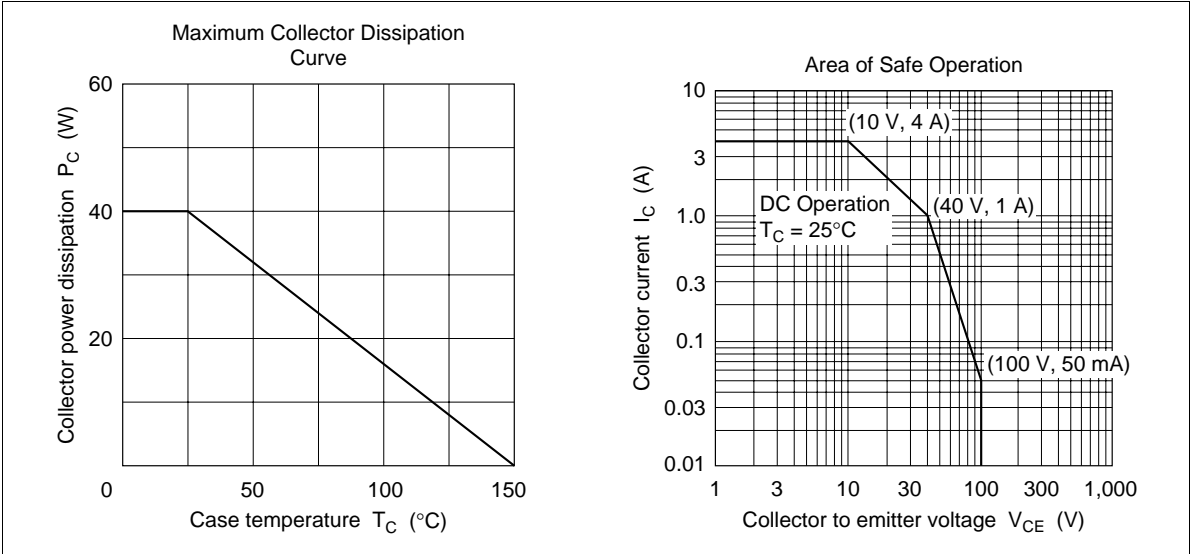
Item	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	100	V
Collector to emitter voltage	$V_{CEO}$	100	V
Emitter to base voltage	$V_{EBO}$	4	V
Collector current	$I_C$	4	A
Collector peak current	$I_{C(peak)}$	5	A
Collector power dissipation	$P_C$	1.8	W
	$P_C^{*1}$	40	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-45 to +150	°C

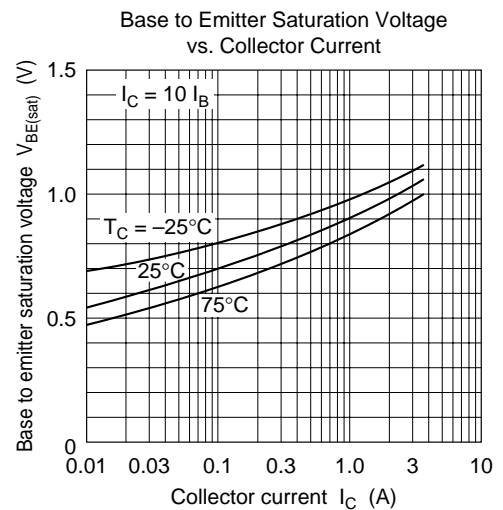
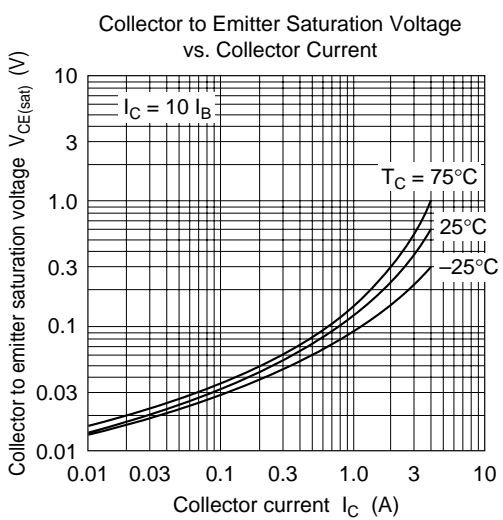
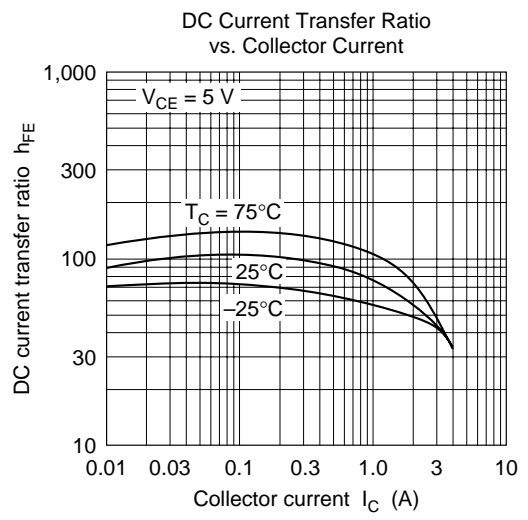
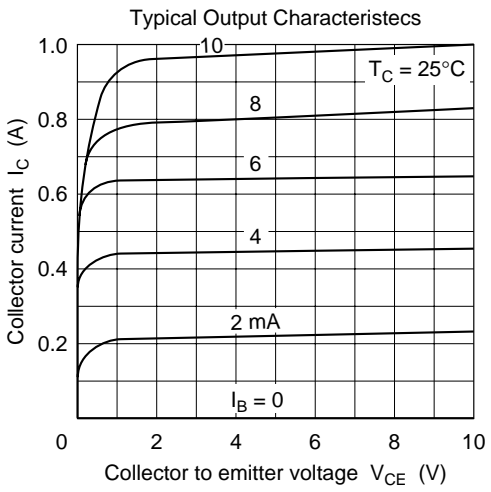
Note: 1. Value at  $T_C = 25^\circ\text{C}$ .

Electrical Characteristics (Ta = 25°C)

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

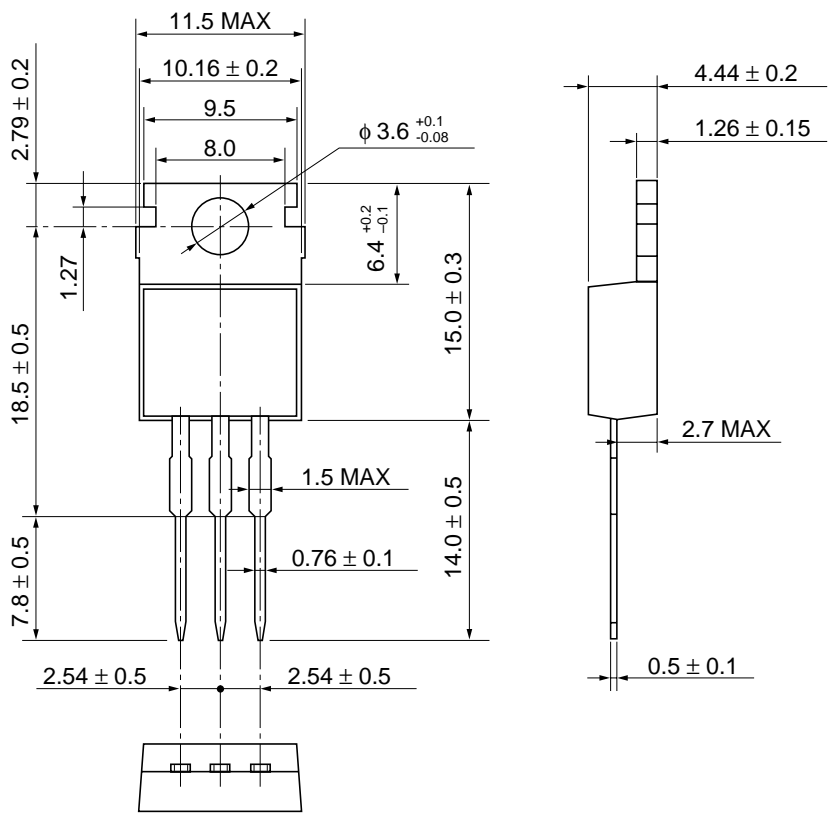
Note: 1. Pulse test.





Package Dimensions

Unit: mm



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

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