2SB1688

Silicon PNP Epitaxial
High voltage amplifier

HITACHI

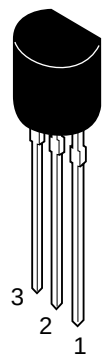
ADE-208-975A (Z)
2nd. Edition
Mar. 2001

Features

- High breakdown voltage
  V_{CEO} = -300V min

Outline

TO-92 (1)



1. Emitter
2. Collector
3. Base

Hitachi semiconductor

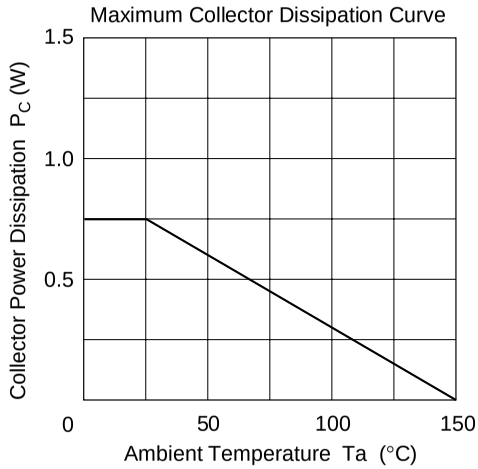
Absolute Maximum Ratings (Ta = 25°C)

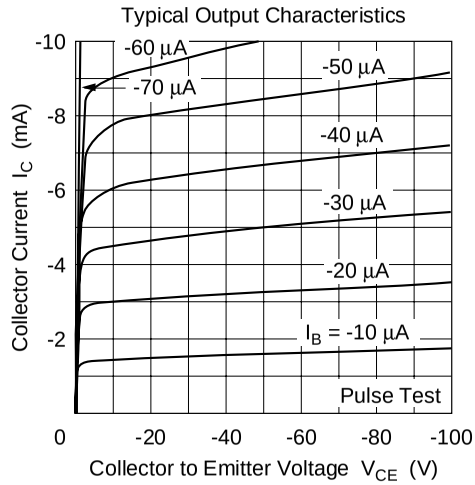
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-300	V
Collector to emitter voltage	V_{CEO}	-300	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-50	mA
Collector power dissipation	P_C	750	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

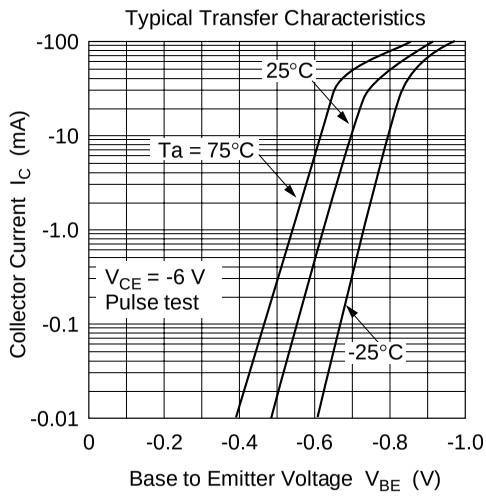
Electrical Characteristics (Ta = 25°C)

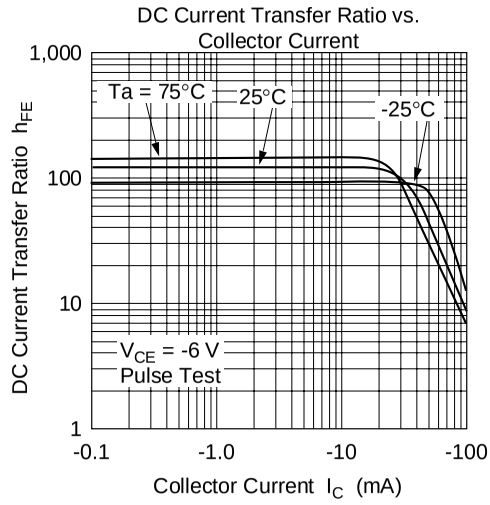
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector cutoff current	I_{CBO}	—	—	-0.1	µA	V_{CB} = -300V, I_E = 0
	I_{CEO}	—	—	-0.1	µA	V_{CE} = -300V, R_{BE} =∞
Emitter cutoff current	I_{EBO}	—	—	-10	µA	V_{EB} = -5 V, I_C = 0
Base to emitter voltage	V_{BE}	—	—	-0.75	V	V_{CE} = -6V, I_C = -1mA
DC current transfer raito	h_{FE}	80	—	160	—	V_{CE} = -6V, I_C = -2mA
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.9	V	I_C = -30mA, I_B = -3mA

Main Characteristics

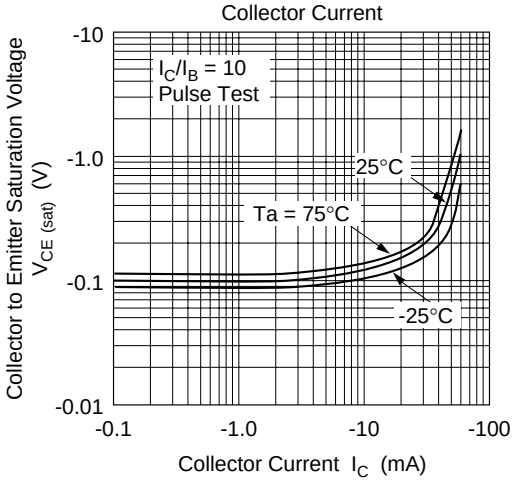




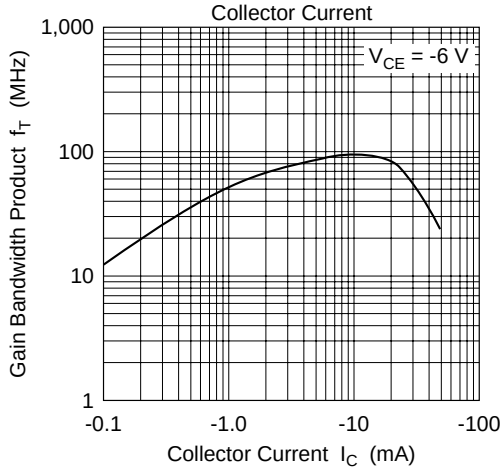




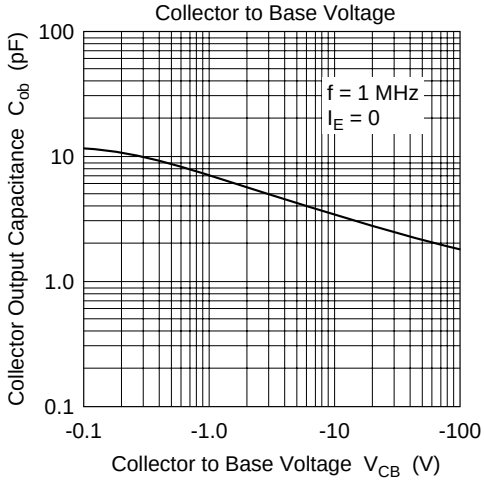
Collector to Emitter Saturation Voltage vs. Collector Current



Gain Bandwidth Product vs. Collector Current

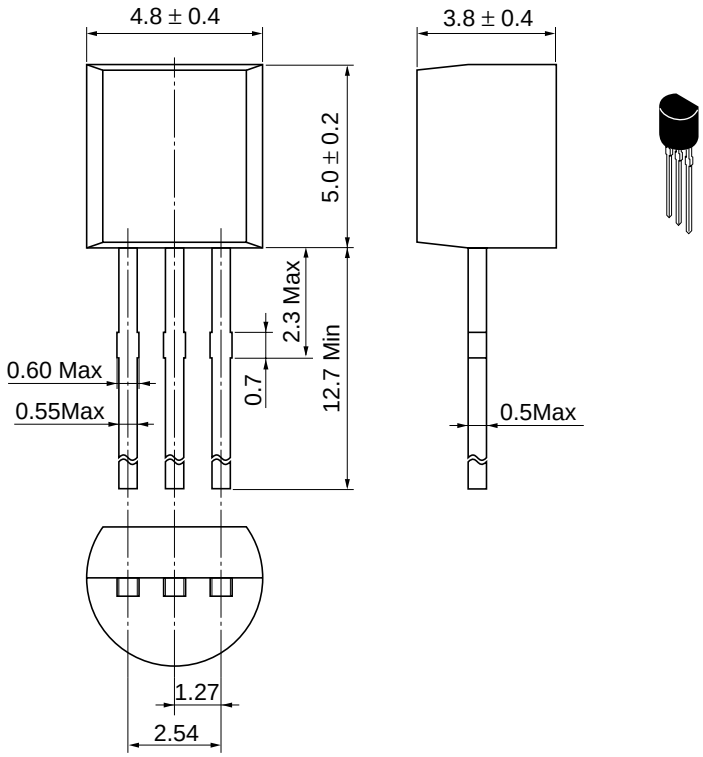


Collector Output Capacitance vs. Collector to Base Voltage



Package Dimensions

As of January, 2001
Unit: mm



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

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