
2SC1214

Silicon NPN Epitaxial

HITACHI

ADE-208-1050 (Z)

1st. Edition

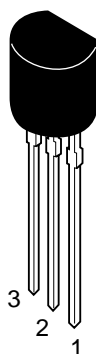
Mar. 2001

Application

Low frequency amplifier

Outline

TO-92 (1)



- 1. Emitter
- 2. Collector
- 3. Base

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	50	V
Collector to emitter voltage	V_{CEO}	50	V
Emitter to base voltage	V_{EBO}	4	V
Collector current	I_C	500	mA
Collector power dissipation	P_C	600	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

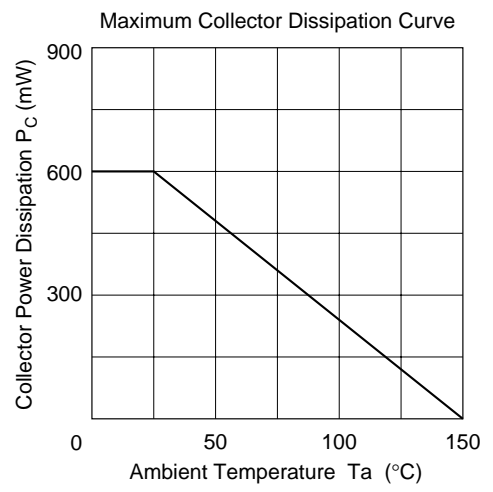
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	50	—	—	V	$I_C = 10\text{ }\mu\text{A}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	50	—	—	V	$I_C = 1\text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	4	—	—	V	$I_E = 10\text{ }\mu\text{A}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	0.5	μA	$V_{CB} = 20\text{ V}$, $I_E = 0$
DC current transfer ratio	h_{FE}^*	60	—	320		$V_{CE} = 3\text{ V}$, $I_C = 10\text{ mA}$
	h_{FE}	10	—	—		$V_{CE} = 3\text{ V}$, $I_C = 500\text{ mA}$ (pulse test)
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	0.2	0.6	V	$I_C = 150\text{ mA}$, $I_B = 15\text{ mA}$ (Pulse test)
Base to emitter voltage	V_{BE}	—	0.64	—	V	$V_{CE} = 3\text{ V}$, $I_C = 10\text{ mA}$

Note: 1. The 2SC1214 is grouped by h_{FE} as follows.

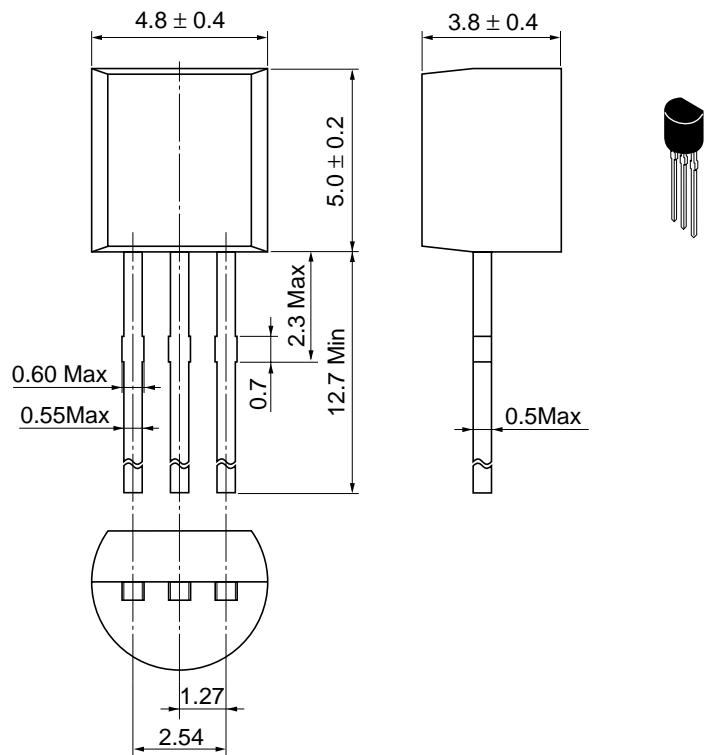
B	C	D
60 to 120	100 to 200	160 to 320

See characteristic curves of 2SC1213.



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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