

To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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Not recommended
for new design

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Renesas Technology Home Page: <http://www.renesas.com>

Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

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2SD1490

Silicon NPN Epitaxial

RENESAS

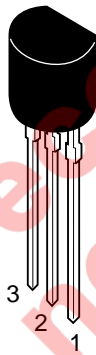
ADE-208-1157A (Z)
2nd. Edition
Mar. 2001

Application

- Low frequency power amplifier

Outline

TO-92 (1)



1. Emitter
2. Collector
3. Base

2SD1490

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V _{CBO}	70	V
Collector to emitter voltage	V _{CEO}	50	V
Emitter to base voltage	V _{EBO}	6	V
Collector current	I _C	1	A
Collector power dissipation	P _C	0.75	W
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics (Ta = 25°C)

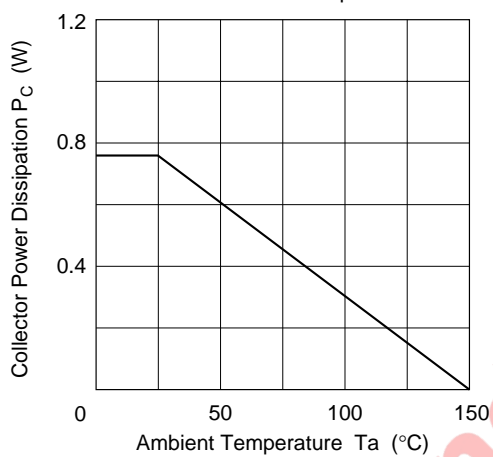
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	V _{(BR)CBO}	70	—	—	V	I _C = 10 μA, I _E = 0
Collector to emitter breakdown voltage	V _{(BR)CEO}	50	—	—	V	I _C = 1 mA, R _{BE} = ∞
Emitter to base breakdown voltage	V _{(BR)EBO}	6	—	—	V	I _E = 10 μA, I _C = 0
Collector cutoff current	I _{CBO}	—	—	1	μA	V _{CB} = 80 V, I _E = 0
Emitter cutoff current	I _{EBO}	—	—	0.2	μA	V _{EB} = 6 V, I _C = 0
DC current transfer ratio	h _{FE} *1	100	—	500		V _{CE} = 2 V, I _C = 0.1 A
Collector to emitter saturation voltage	V _{CE(sat)}	—	—	0.3	V	I _C = 1 A, I _B = 0.1 A
Gain bandwidth product	f _T	—	80	—	MHz	V _{CE} = 2 V, I _C = 10 mA
Collector output capacitance	C _{ob}	—	20	—	pF	V _{CB} = 10 V, I _E = 0, f = 1 MHz

Note: 1. The 2SD1490 is grouped by h_{FE} as follows.

B	C	D
100 to 200	160 to 320	250 to 500

See characteristic curves of 2SD789.

Maximum Collector Dissipation Curve

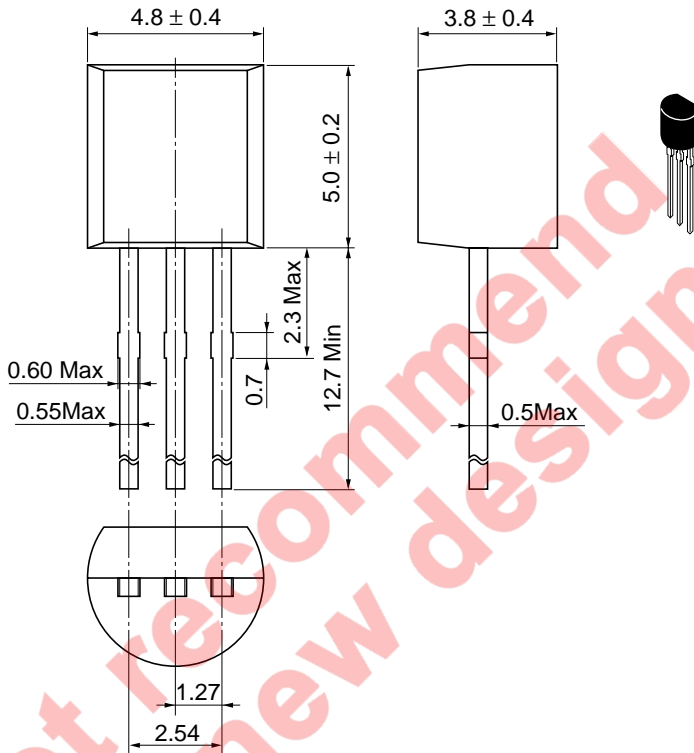


Not recommend
for new design

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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