To all our customers

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

Cautions

Keep safety first in your circuit designs!

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2SC4629

Silicon NPN Epitaxial

RENESAS

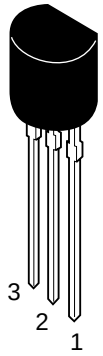
ADE-208-1115A (Z)
2nd. Edition
Mar. 2001

Application

UHF / VHF wide band amplifier

Outline

TO-92 (2)



1. Base
2. Emitter
3. Collector

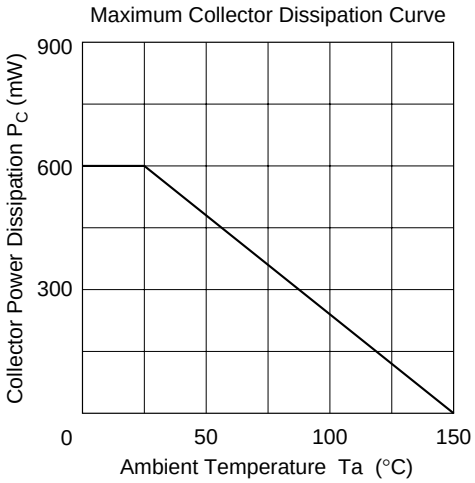
Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	15	V
Collector to emitter voltage	V_{CEO}	9	V
Emitter to base voltage	V_{EBO}	1.5	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	600	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	15	—	—	V	I_C = 10 µA, I_E = 0
Collector cutoff current	I_{CBO}	—	—	1	µA	V_{CB} = 12 V, I_E = 0
	I_{CEO}	—	—	1	mA	V_{CE} = 9 V, R_{BE} =
Emitter cutoff current	I_{EBO}	—	—	10	µA	V_{EB} = 1.5 V, I_C = 0
DC current transfer ratio	h_{FE}	40	120	250	—	V_{CE} = 5 V, I_C = 20 mA
Collector output capacitance	Cob	—	1.15	1.85	pF	V_{CB} = 5 V, I_E = 0, f = 1MHz
Gain bandwidth product	f_T	5.5	8.0	—	GHz	V_{CE} = 5 V, I_C = 20 mA
Power gain	PG	8.5	11.5	—	dB	V_{CE} = 5 V, I_C = 20 mA, f = 900 MHz
Noise figure	NF	—	1.2	25	dB	V_{CE} = 5 V, I_C = 5 mA, f = 900 MHz

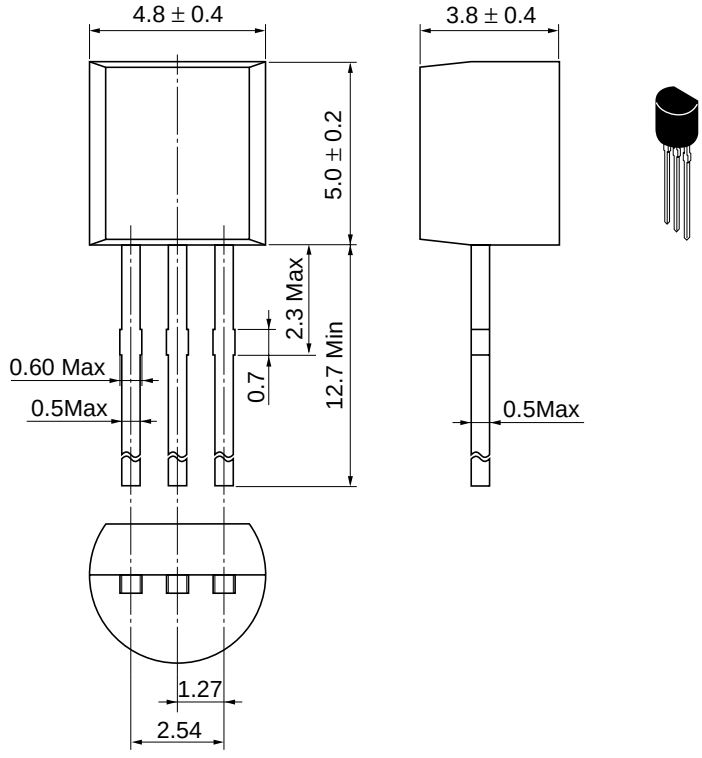
See characteristic curve of 2SC4591


Maximum Collector Dissipation Curve
Collector Power Dissipation P_C (mW)
900
600
300
0
50
100
150
Ambient Temperature Ta (°C)

Package Dimensions

As of January, 2001

Unit: mm



Hitachi Code	TO-92 (2)
JEDEC	Conforms
EIAJ	Conforms
Mass (reference value)	0.25 g

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