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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   Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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2SC3553

Silicon NPN Epitaxial

RENESAS

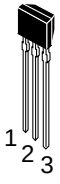
ADE-208-1090 (Z)
1st. Edition
Mar. 2001

Application

Low frequency amplifier

Outline

SPAK



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	35	V
Collector to emitter voltage	V_{CEO}	35	V
Emitter to base voltage	V_{EBO}	4	V
Collector current	I_C	500	mA
Collector power dissipation	P_C	300	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

Electrical Characteristics (Ta = 25°C)

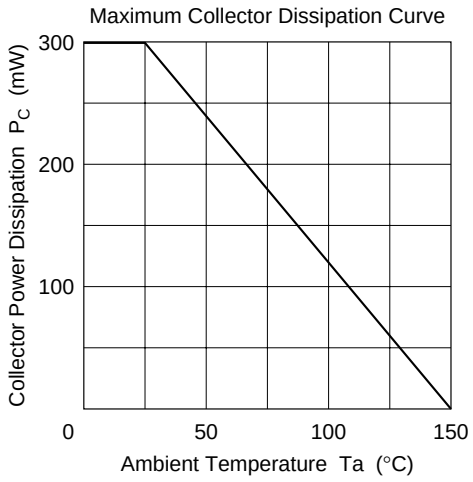
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	35	—	—	V	I_C = 10 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	35	—	—	V	I_C = 1 mA, R_{BE} =
Emitter to base breakdown voltage	$V_{(BR)EBO}$	4	—	—	V	I_E = 10 µA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	0.5	µA	V_{CB} = 20 V, I_E = 0
DC current transfer ratio	h_{FE1}*[1]	60	—	320		V_{CE} = 3 V, I_C = 10 mA
	h_{FE2}	10	—	—		V_{CE} = 3 V, I_C = 500 mA*[2]
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	0.2	0.6	V	I_C = 150 mA, I_B = 15 mA*[2]
Base to emitter voltage	V_{BE}	—	0.64	—	V	V_{CE} = 3 V, I_C = 10 mA

Notes: 1. The 2SC3553 is grouped by h_{FE1} as follows.

2. Pulse test

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

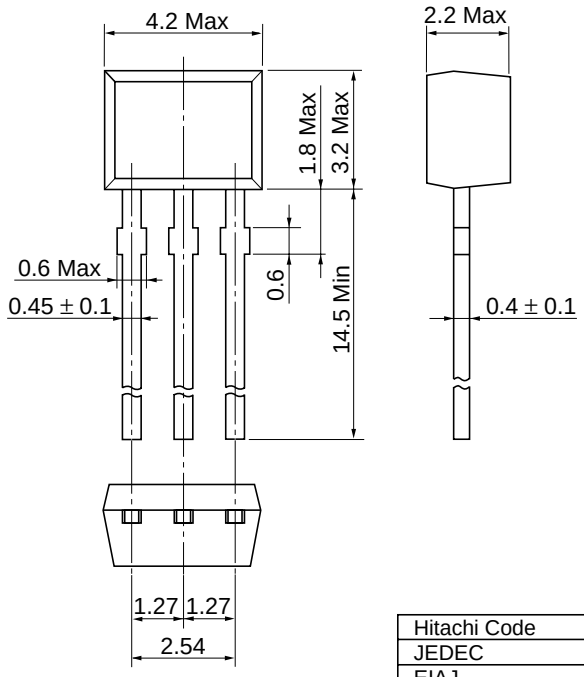
See characteristic curves of 2SC1213.

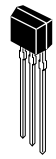

Maximum Collector Dissipation Curve
Collector Power Dissipation P_C (mW)
300
200
100
0
50
100
150
Ambient Temperature Ta (°C)

Package Dimensions

As of January, 2001

Unit: mm





Hitachi Code	SPAK
JEDEC	—
EIAJ	—
Mass (reference value)	0.10 g

Cautions

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