

To all our customers

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

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

Cautions

Keep safety first in your circuit designs!

1. Renesas Technology Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage.

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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2SC4261

Silicon NPN Epitaxial

RENESAS

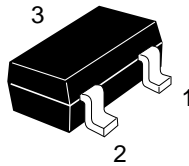
ADE-208-1099A (Z)
2nd. Edition
Mar. 2001

Application

UHF Local oscillator

Outline

CMPAK



1. Emitter
2. Base
3. Collector

Note: Marking is "QI-".

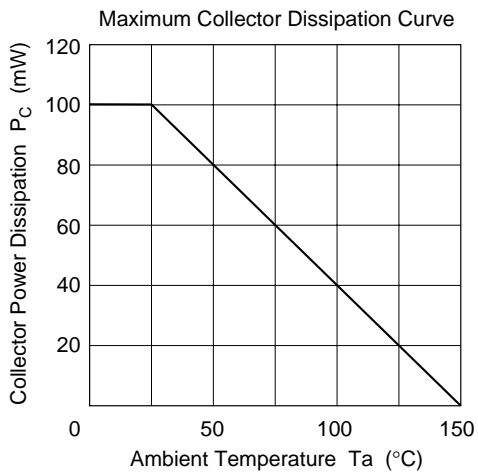
Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	25	V
Collector to emitter voltage	V_{CEO}	15	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	100	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	$V_{(BR)CBO}$	25	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector cutoff current	I_{CBO}	—	—	0.3	μA	$V_{CB} = 15 V, I_E = 0$
	I_{CEO}	—	—	10	μA	$V_{CE} = 15 V, R_{BE} =$
Emitter cutoff current	I_{EBO}	—	—	1.0	μA	$V_{EB} = 3 V, I_C = 0$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.3	V	$I_C = 20 mA, I_B = 4 mA$
DC current transfer ratio	h_{FE}	50	—	180		$V_{CE} = 5 V, I_C = 5 mA$
Collector output capacitance	C_{ob}	—	0.7	1.0	pF	$V_{CB} = 10 V, I_E = 0, f = 1 MHz$
Gain bandwidth product	f_T	1.8	2.4	—	GHz	$V_{CE} = 5 V, I_C = 20 mA$
Oscillating output voltage	V_{OSC}	—	200	—	mV	$V_{CC} = 5 V, I_C = 5 mA, f = 930 MHz$

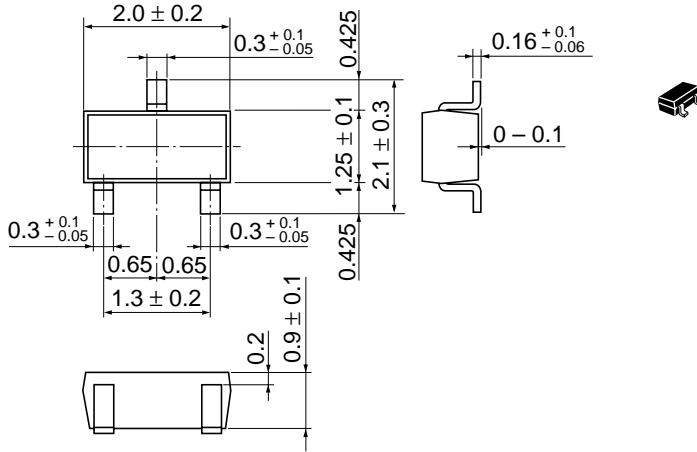
See characteristic curves of 2SC4196.



Package Dimensions

As of January, 2001

Unit: mm



Hitachi Code	CMPAK
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.006 g

Cautions

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