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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2SC4965

Silicon NPN Epitaxial

ADE-208-006A (Z)
2nd. Edition
Mar. 2001

Application

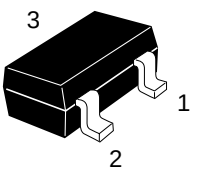
VHF / UHF RF switch

Features

- Low Ron and high performance for RF switch.
- Capable of high density mounting.

Outline

CMPAK



1. Emitter
2. Base
3. Collector

Note: Marking is “YV–”.

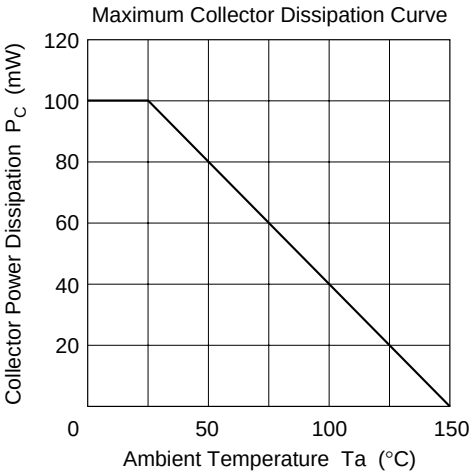
Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	12	V
Collector to emitter voltage	V_{CEO}	8	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_C	100	mA
Collector power dissipation	P_C	100	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	$V_{(BR)CBO}$	12	—	—	V	I_C = 10 µA, I_E = 0
Collector cutoff current	I_{CBO}	—	—	10	µA	V_{CB} = 10 V, I_E = 0
	I_{CEO}	—	—	1	mA	V_{CE} = 8 V, R_{BE} =
Emitter cutoff current	I_{EBO}	—	—	10	µA	V_{EB} = 3 V, I_C = 0
DC current transfer ratio	h_{FE}	100	250	600		V_{CE} = 5 V, I_C = 5 mA
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	150	300	mV	I_C = 80 mA, I_B = 5 mA
Collector output capacitance	Cob	—	1.9	1.6	pF	V_{CB} = 5 V, I_E = 0, f = 1 MHz
On resistance	Ron	—	1.2	—		I_B = 2.5 mA, f = 1 kHz

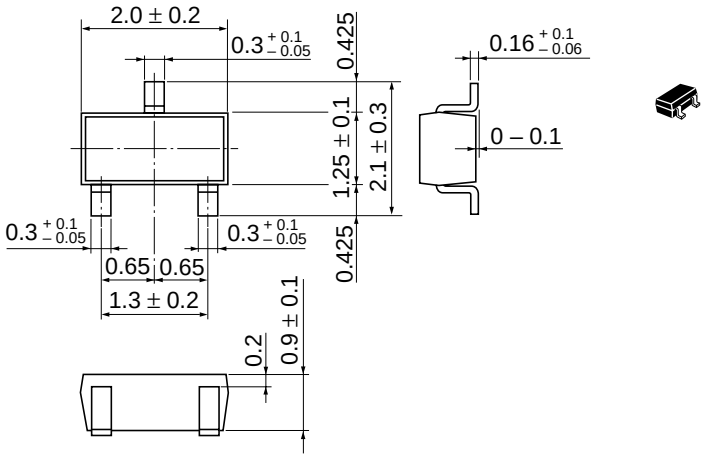
See characteristic curves of 2SC4964.


Maximum Collector Dissipation Curve
Collector Power Dissipation P_C (mW)
120
100
80
60
40
20
0
50
100
150
Ambient Temperature Ta (°C)

Package Dimensions

As of January, 2001

Unit: mm



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

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Colophon 2.0

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