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# 2SC4965

Silicon NPN Epitaxial

# HITACHI

ADE-208-006A (Z)

2nd. Edition

Mar. 2001

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## Application

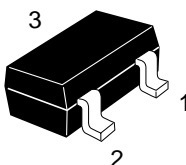
VHF / UHF RF switch

## Features

- Low  $R_{on}$  and high performance for RF switch.
- Capable of high density mounting.

## Outline

CMPAK



- 1. Emitter
- 2. Base
- 3. Collector

Note: Marking is "YV-".

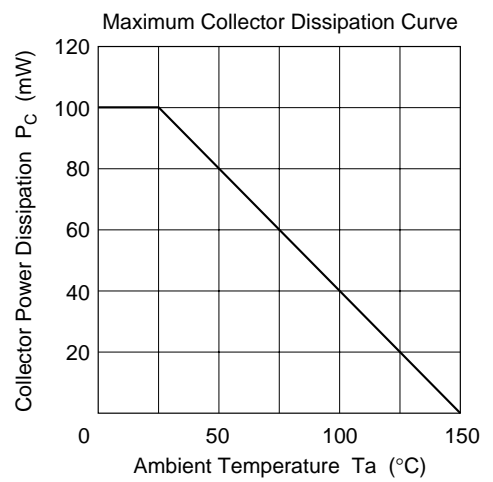
**Absolute Maximum Ratings** ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{\text{CBO}}$	12	V
Collector to emitter voltage	$V_{\text{CEO}}$	8	V
Emitter to base voltage	$V_{\text{EBO}}$	3	V
Collector current	$I_{\text{C}}$	100	mA
Collector power dissipation	$P_{\text{C}}$	100	mW
Junction temperature	$T_{\text{j}}$	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

**Electrical Characteristics** ( $T_a = 25^\circ\text{C}$ )

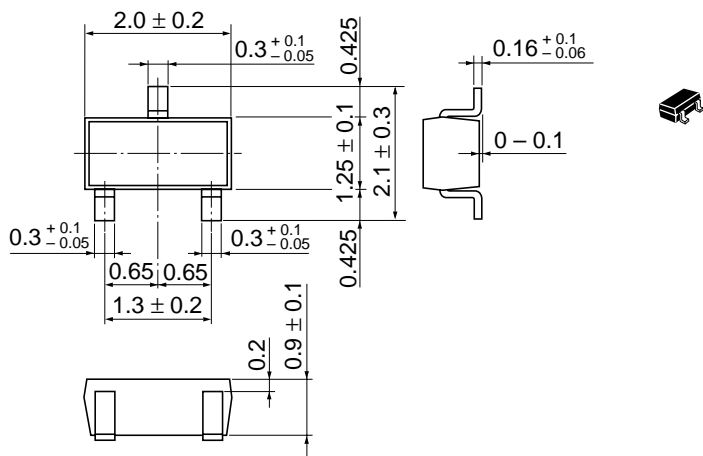
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	12	—	—	V	$I_{\text{C}} = 10\text{ }\mu\text{A}$ , $I_{\text{E}} = 0$
Collector cutoff current	$I_{\text{CBO}}$	—	—	10	$\mu\text{A}$	$V_{\text{CB}} = 10\text{ V}$ , $I_{\text{E}} = 0$
	$I_{\text{CEO}}$	—	—	1	mA	$V_{\text{CE}} = 8\text{ V}$ , $R_{\text{BE}} = \infty$
Emitter cutoff current	$I_{\text{EBO}}$	—	—	10	$\mu\text{A}$	$V_{\text{EB}} = 3\text{ V}$ , $I_{\text{C}} = 0$
DC current transfer ratio	$h_{\text{FE}}$	100	250	600		$V_{\text{CE}} = 5\text{ V}$ , $I_{\text{C}} = 5\text{ mA}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	—	150	300	mV	$I_{\text{C}} = 80\text{ mA}$ , $I_{\text{B}} = 5\text{ mA}$
Collector output capacitance	$C_{\text{ob}}$	—	1.9	1.6	pF	$V_{\text{CB}} = 5\text{ V}$ , $I_{\text{E}} = 0$ , $f = 1\text{ MHz}$
On resistance	$R_{\text{on}}$	—	1.2	—	$\Omega$	$I_{\text{B}} = 2.5\text{ mA}$ , $f = 1\text{ kHz}$

See characteristic curves of 2SC4964.



Package Dimensions

As of January, 2001  
Unit: mm



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

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