

2SC4965

Silicon NPN Epitaxial

REJ03G0737-0300 (Previous ADE-208-006A) Rev.3.00 Aug.10.2005

Application

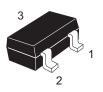
VHF / UHF RF switch

Features

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

Outline

RENESAS Package code: PTSP0003ZA-A (Package name: CMPAK $^{\circledR}$)



1. Emitter

2. Base

3. Collector

Note: Marking is "YV-".

*CMPAK is a trademark of Renesas Technology Corp.

Absolute Maximum Ratings

 $(Ta = 25^{\circ}C)$

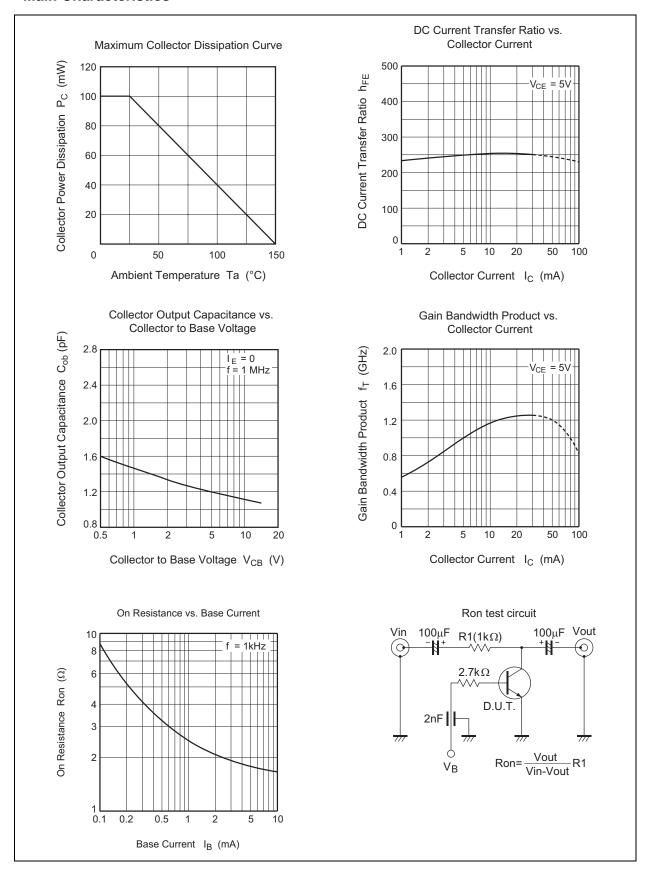
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	12	V
Collector to emitter voltage	V_{CEO}	8	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	Ic	100	mA
Collector power dissipation	P _C	100	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

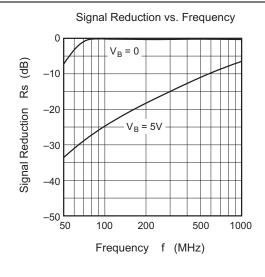
Electrical Characteristics

 $(Ta = 25^{\circ}C)$

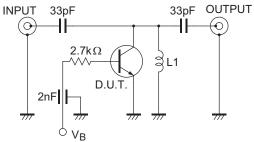
Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	12		_	V	$I_C = 10 \mu A, I_E = 0$
Collector cutoff current	I _{CBO}	_		10	μΑ	$V_{CB} = 10 \text{ V}, I_{E} = 0$
	I _{CEO}	_		1	mA	V _{CE} = 8 V, R _{BE} = ∞
Emitter cutoff current	I _{EBO}	_	_	10	μΑ	$V_{EB} = 3 \text{ V}, I_{C} = 0$
DC current transfer ratio	h _{FE}	100	250	600		$V_{CE} = 5 \text{ V}, I_{C} = 5 \text{ mA}$
Collector to emitter saturation voltage	V _{CE(sat)}	_	150	300	mV	$I_C = 80 \text{ mA}, I_B = 5 \text{ mA}$
Collector output capacitance	Cob	_	1.9	1.6	pF	$V_{CB} = 5 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$
On resistance	Ron	_	1.2	_	Ω	$I_B = 2.5 \text{ mA}, f = 1 \text{ kHz}$

Main Characteristics



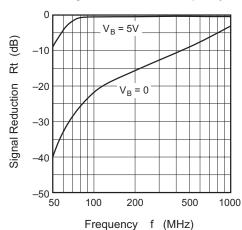


Signal Reduction test circuit

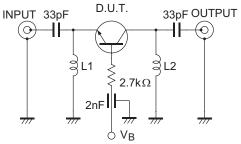


L1 : Inside dia ϕ 3 mm , ϕ 0.5 mm Enameled Copper Wire 7 Turns.

Signal Reduction vs. Frequency

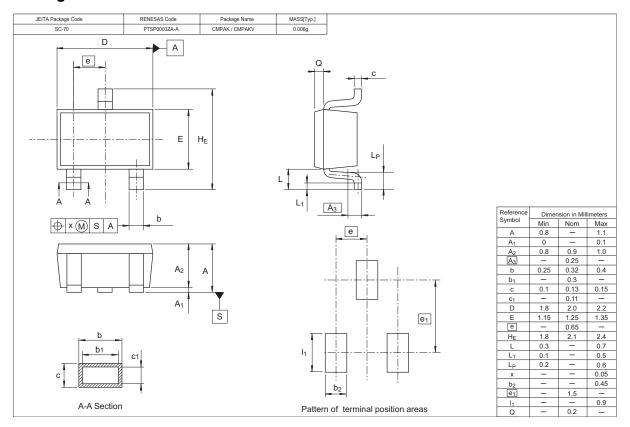


Signal Reduction test circuit



L1 , L2 : Inside dia ϕ 3 mm , ϕ 0.5 mm Enameled Copper Wire 7 Turns.

Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SC4965YV-TL-E	3000	φ 178 mm Reel, 8 mm Emboss Taping

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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