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April 1<sup>st</sup>, 2010

**Renesas Electronics Corporation** 

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# **2SC4964** Silicon NPN Epitaxial

REJ03G0736-0300 (Previous ADE-208-005A) 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

## Absolute Maximum Ratings

			$(Ta = 25^{\circ}C)$
ltem 🔨	Symbol	Ratings	Unit
Collector to base voltage	V <sub>CBO</sub>	12	V
Collector to emitter voltage	V <sub>CEO</sub>	8	V
Emitter to base voltage	V <sub>EBO</sub>	3	V
Collector current	Ι <sub>C</sub>	100	mA
Collector power dissipation	Pc	150	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C



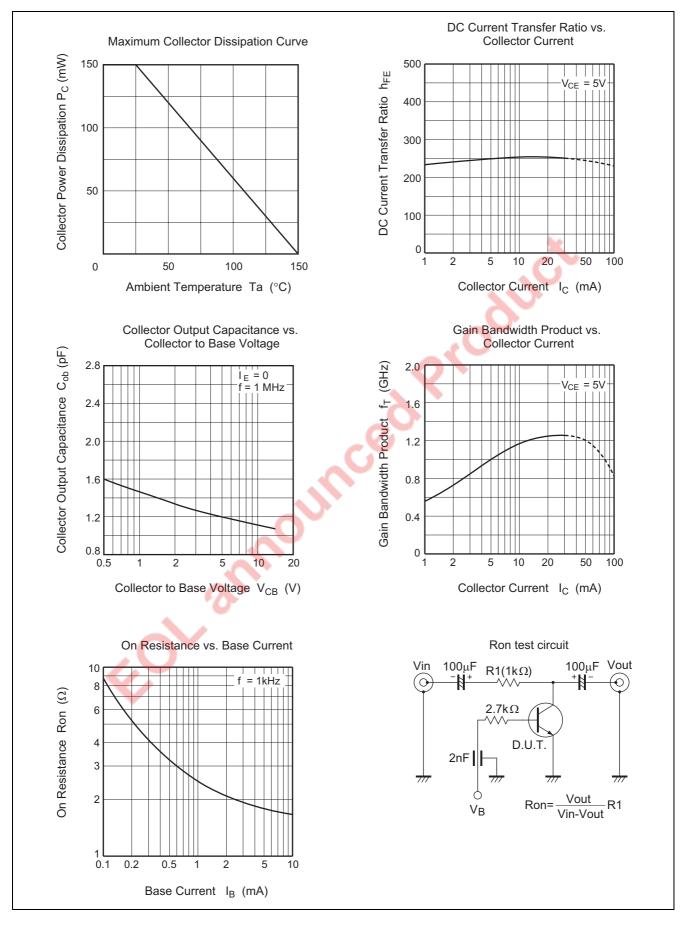
### **Electrical Characteristics**

	Overality and	N/:	<b>T</b>	NA	11	$(Ta = 25^{\circ}C)$
Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage Collector cutoff current	V <sub>(BR)CBO</sub>	12		1	V	$I_{\rm C} = 10 \ \mu \text{A}, \ I_{\rm E} = 0$
	I <sub>CBO</sub>			1	μA mA	$V_{CB} = 10 \text{ V}, \text{ I}_{E} = 0$ $V_{CE} = 8 \text{ V}, \text{ R}_{BE} = \infty$
Emitter cutoff current			-	10	μA	$V_{\text{EB}} = 3 \text{ V},  \text{R}_{\text{BE}} = \infty$ $V_{\text{EB}} = 3 \text{ V},  \text{I}_{\text{C}} = 0$
DC current transfer ratio	l <sub>EBO</sub>	100	 250	600	μA	$V_{EB} = 5 V, I_C = 0$ $V_{CE} = 5 V, I_C = 5 mA$
	h <sub>FE</sub>	1		300	mV	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>		200			$I_{\rm C} = 80 \text{ mA}, I_{\rm B} = 5 \text{ mA}$
Collector output capacitance On resistance	Cob Ron		1.2 2.0	1.6	pF Ω	$V_{CB} = 5 V$ , $I_E = 0$ , $f = 1 MHz$ $I_B = 2.5 mA$ , $f = 1 kHz$
	no			\$		

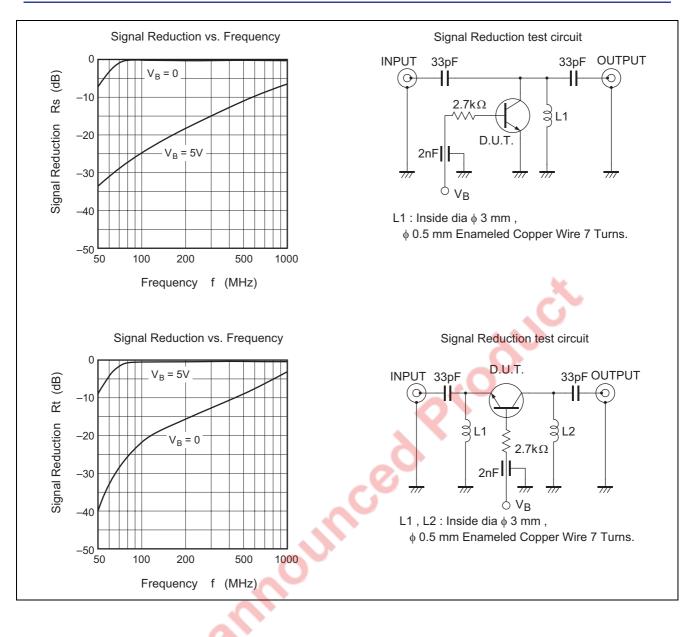
 $(T_0 - 25^{\circ}C)$ 



### **Main Characteristics**

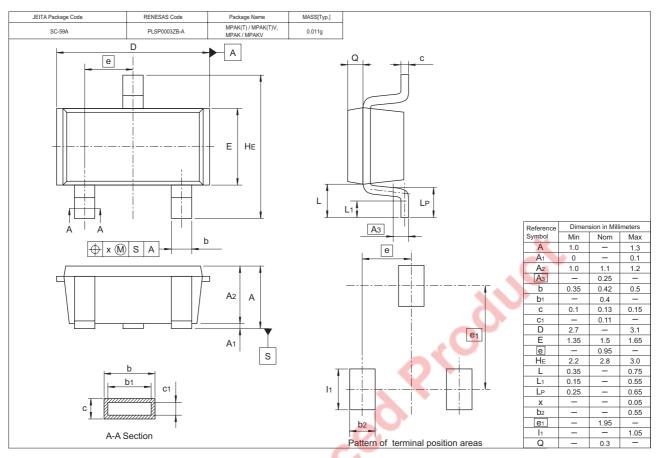








### **Package Dimensions**



## **Ordering Information**

EO1

Ordering Informati			
Part Name	Quantity		Shipping Container
2SC4964YV-TL-E	3000		♦ 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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