

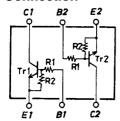
**FC132** 

NPN Epitaxial Planar Silicon Composite Transistor
Switching Applications
(with Bias Resistance)

## **Features**

- · On-chip bias resistances (R1=10k $\Omega$ , R2=47k $\Omega$ ).
- · Composite type with 2 transistors contained in the CP package currently in use, improving the mounting efficiency greatly.
- The FC132 is formed with two chips, being equivalent to the 2SC4047, placed in one package.
- · Excellent in thermal equilibrium and pair capability.

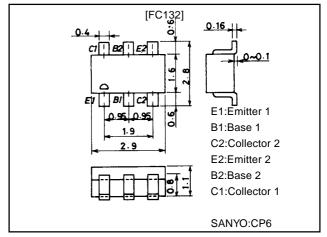
#### **Electrical Connection**



## **Package Dimensions**

unit:mm

2067



# **Specifications**

### Absolute Maximum Ratings at Ta = 25°C

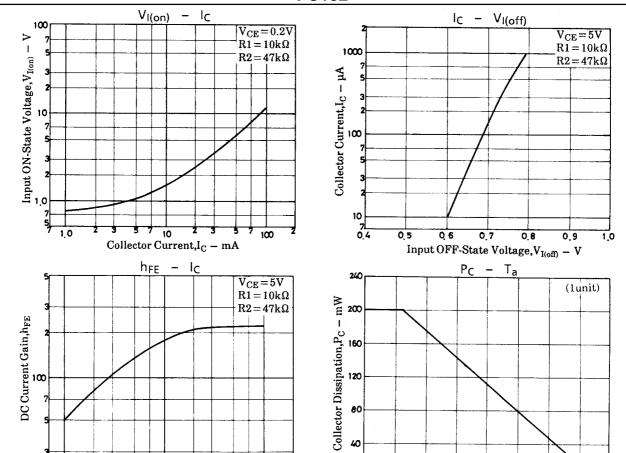
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		50	V
Collector-to-Emitter Voltage	VCEO		50	V
Emitter-to-Base Voltage	V <sub>EBO</sub>		6	V
Collector Current	IC		100	mA
Peak Collector Current	I <sub>CP</sub>		200	mA
Collector Dissipation	PC	1 unit	200	mW
Total Power Dissipation	PT		300	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	Offic
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =40V, I <sub>E</sub> =0			0.1	μA
Collector Cutoff Current	ICEO	V <sub>CB</sub> =40V, I <sub>E</sub> =0			0.5	μΑ
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0	67	88	125	μA
DC Current Gain	hFE	V <sub>CE</sub> =5V, I <sub>C</sub> =5mA	70			
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =5mA		250		MHz
Output Capacitance	Cob	V <sub>CB</sub> =10V, f=1MHz		3.3		pF
C-E Saturation Voltage	VCE(sat)	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA		0.1	0.3	V
C-B Breakdown Voltage	V(BR)CBO	I <sub>C</sub> =10μA, I <sub>E</sub> =0	50			V
C-E Breakdown Voltage	V <sub>(BR)</sub> CEO	I <sub>C</sub> =100μA, R <sub>BE</sub> =∞	50			V
Input OFF-State Voltage	V <sub>I(off)</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =100μA	0.5	0.7	0.9	V
Input ON-State Voltage	V <sub>I(on)</sub>	V <sub>CE</sub> =0.2V, I <sub>C</sub> =5mA	0.7	1.0	2.0	V
Input Resistance	R1		7	10	13	kΩ
Resistacnce Ratio	R1/R2		0.193	0.213	0.234	

Note: The specifications shown above are for each individual transistor.

Marking:132



- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:

10

Collector Current, IC - mA

100

① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:

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60

80

100

Ambient Temperature, Ta - C

120

140

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