

# 深圳市晶泰源电子有限公司

## 2SA683, 2SA684

Silicon PNP epitaxial planer type

For low-frequency power amplification and driver amplification

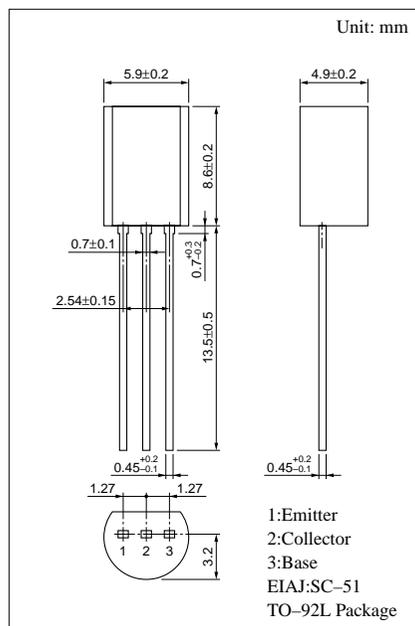
Complementary to 2SC1383 and 2SC1384

### Features

- Complementary pair with 2SC1383 and 2SC1384.
- Allowing supply with the radial taping.

### Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V <sub>CBO</sub>	-30	V
2SA683			
2SA684		-60	
Collector to emitter voltage	V <sub>CEO</sub>	-25	V
2SA683			
2SA684		-50	
Emitter to base voltage	V <sub>EBO</sub>	-5	V
Peak collector current	I <sub>CP</sub>	-1.5	A
Collector current	I <sub>C</sub>	-1	A
Collector power dissipation	P <sub>C</sub>	1	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 ~ +150	°C



### Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = -20V, I <sub>E</sub> = 0			-0.1	μA
Collector to base voltage	V <sub>CBO</sub>	I <sub>C</sub> = -10μA, I <sub>E</sub> = 0	-30			V
			-60			
Collector to emitter voltage	V <sub>CEO</sub>	I <sub>C</sub> = -2mA, I <sub>B</sub> = 0	-25			V
			-50			
Emitter to base voltage	V <sub>EBO</sub>	I <sub>E</sub> = -10μA, I <sub>C</sub> = 0	-5			V
Forward current transfer ratio	h <sub>FE1</sub> *	V <sub>CE</sub> = -10V, I <sub>C</sub> = -500mA	85		340	
	h <sub>FE2</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -1A	50			
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA		-0.2	-0.4	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA		-0.85	-1.2	V
Transition frequency	f <sub>T</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 50mA, f = 200MHz		200		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz		20	30	pF

\*h<sub>FE1</sub> Rank classification

Rank	Q	R	S
h <sub>FE1</sub>	85 ~ 170	120 ~ 240	170 ~ 340

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