



## 2SA684

## PNP SILICON TRANSISTOR

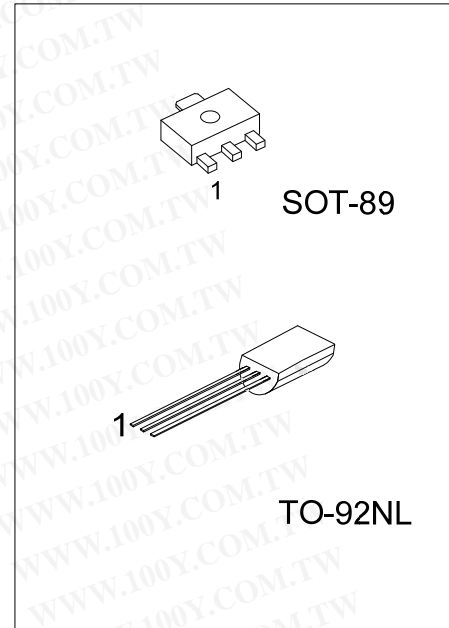
### PNP SILICON TRANSISTOR

#### DESCRIPTION

The **UTC 2SA684** is power amplifier and driver.

#### FEATURES

- \* Automatic insertion by radial taping possible.
- \* Complementary pair with 2SC1384



Lead-free: 2SA684L  
 Halogen-free: 2SA684G

#### ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
2SA684-x-AB3-R	2SA684L-x-AB3-R	2SA684G-x-AB3-R	SOT-89	B	C	E	Tape Reel
2SA684-x-T9N-B	2SA684L-x-T9N-B	2SA684G-x-T9N-B	TO-92NL	E	C	B	Tape Box
2SA684-x-T9N-K	2SA684L-x-T9N-K	2SA684G-x-T9N-K	TO-92NL	E	C	B	Bulk

<p>2SA684L-x-AB3-R</p>	<p>(1) B: Tape Box, K: Bulk, R: Tape Reel          (2) AB3: SOT-89, T9N: TO-92NL          (3) x: refer to Classification of <math>h_{FE1}</math>          (4) G: Halogen, L: Lead Free, Blank: Pb/Sn</p>
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勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-34970699  
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[Http://www.100y.com.tw](http://www.100y.com.tw)

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## PNP SILICON TRANSISTOR

■ ABSOLUTE MAXIMUM RATINGS ( Ta=25°C ,unless otherwise specified )

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	-60	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-50	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Peak Collector Current	I <sub>CP</sub>	-1.5	A
Collector Current (DC)	I <sub>C</sub>	-1	A
Collector Dissipation	SOT-89	500	mW
	TO-92NL	1000	mW
Junction Temperature	T <sub>J</sub>	+150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.  
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

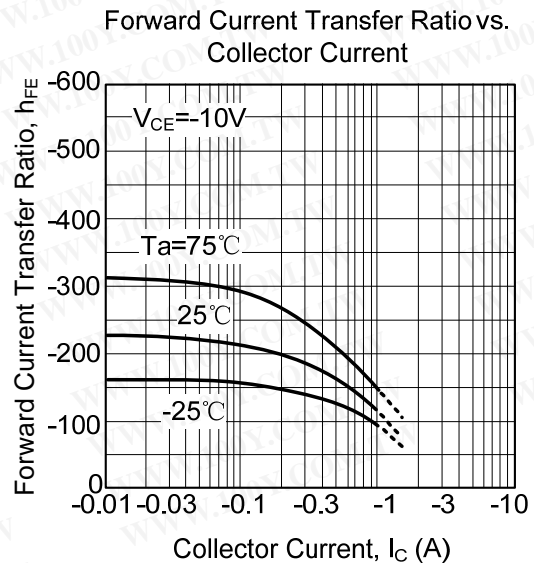
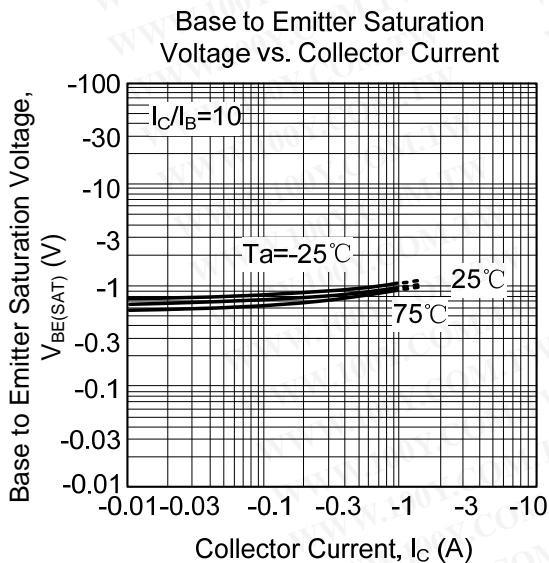
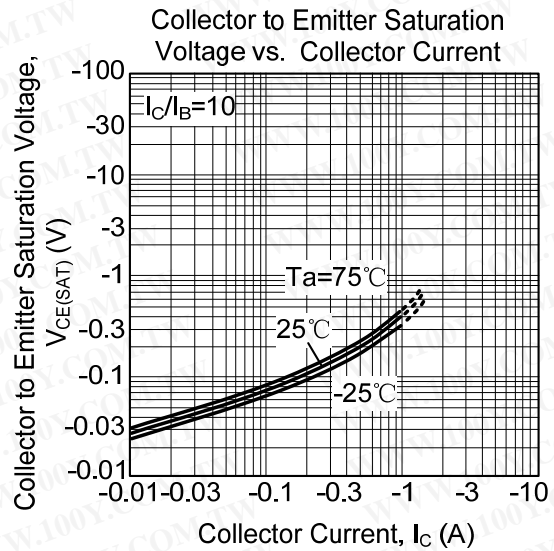
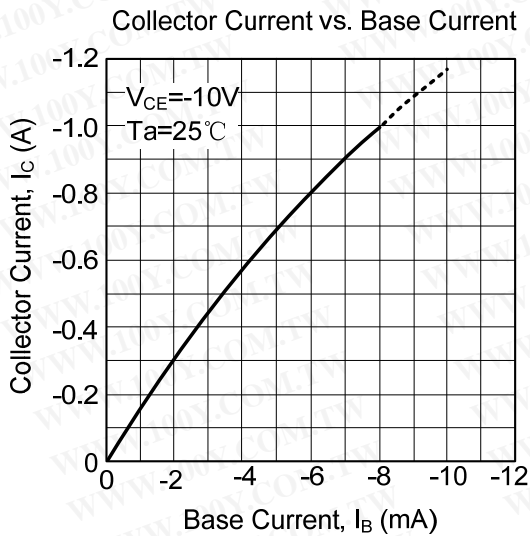
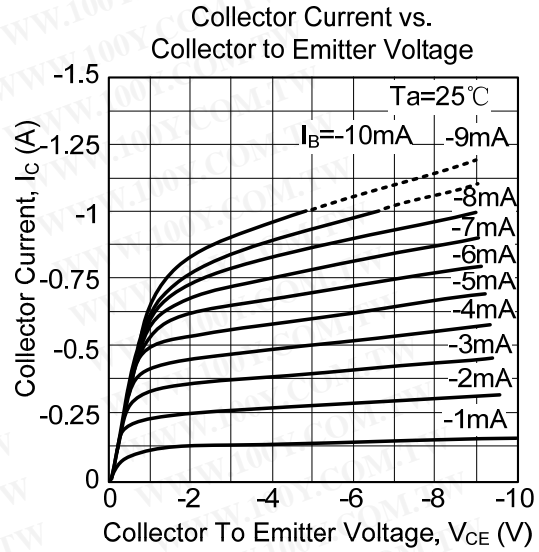
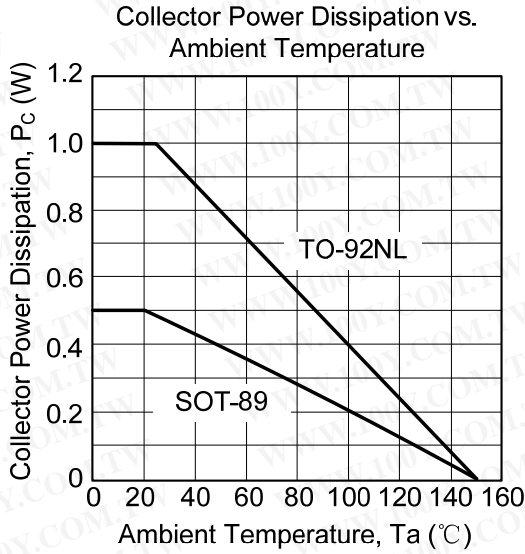
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	I <sub>C</sub> =-10μA, I <sub>E</sub> =0	-60			V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> =-2mA, I <sub>B</sub> =0	-50			V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> =-10μA, I <sub>C</sub> =0	-5			V
Collector Cut-Off Current	I <sub>CBO</sub>	V <sub>CB</sub> =-20V, I <sub>E</sub> =0			-0.1	μA
DC Current Gain	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-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> =-0.5A, I <sub>B</sub> =-50mA		-0.2	-0.4	V
Base-Emitter Saturation Voltage	V <sub>BE(SAT)</sub>	I <sub>C</sub> =-0.5A, I <sub>B</sub> =-50mA		-0.85	-1.2	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =-10V, I <sub>B</sub> =50mA, f=200MHz		200		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, I <sub>E</sub> =0, f=1MHz		20	30	pF

■ CLASSIFICATION OF h<sub>FE1</sub>

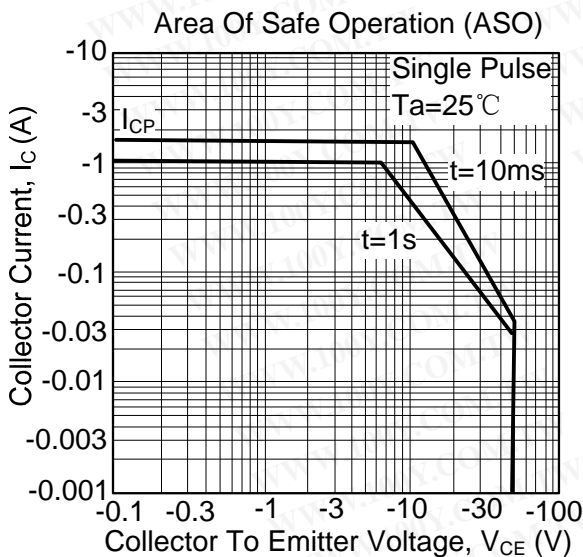
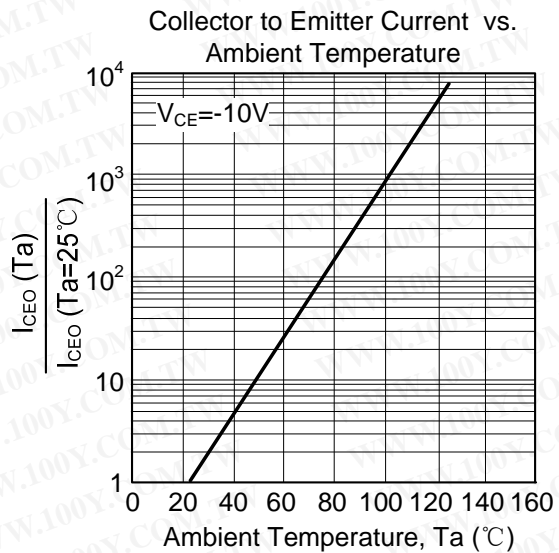
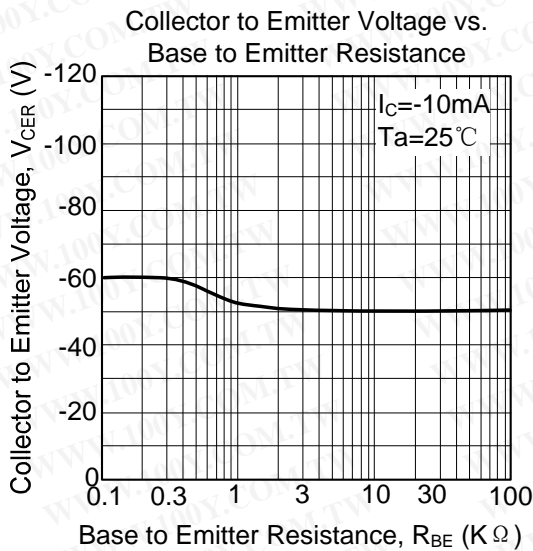
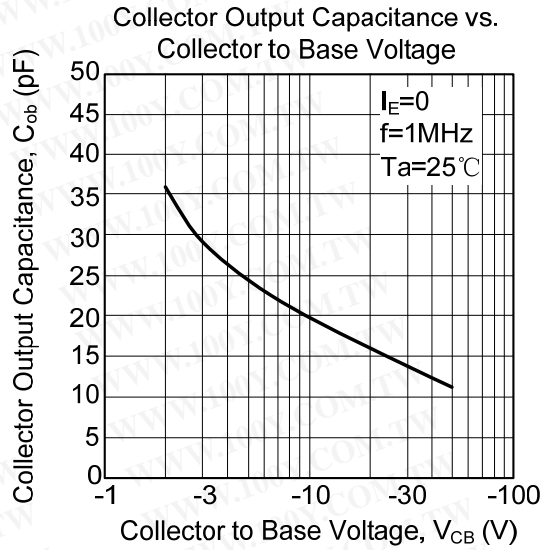
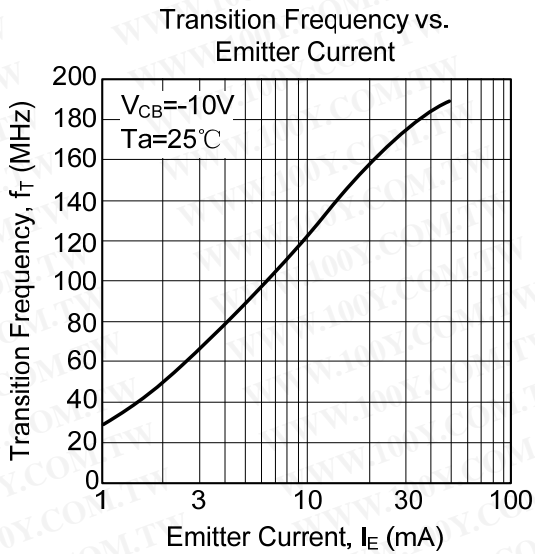
RANK	Q	R	S
RANGE	85-170	120-240	170-340

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### TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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