

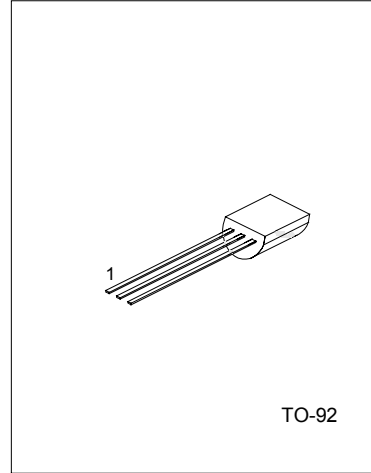
# UTC2SA1015

# PNP EPITAXIAL SILICON TRANSISTOR

## LOW FREQUENCY PNP AMPLIFIER TRANSISTOR

### FEATURES

- \*Collector-Emitter Voltage:  
BV<sub>CEO</sub>=-50V
- \*Collector current up to 150mA
- \*High hFE linearity
- \*Complement to 2SC1815



TO-92

1:EMITTER 2:COLLECTOR 3: BASE

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

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V <sub>CB0</sub>	-50	V
Collector-emitter voltage	V <sub>CEO</sub>	-50	V
Emitter-base voltage	V <sub>EB0</sub>	-5	V
Collector dissipation	P <sub>c</sub>	400	mW
Collector current	I <sub>c</sub>	-150	mA
Base current	I <sub>B</sub>	-50	mA
Junction Temperature	T <sub>j</sub>	125	°C
Storage Temperature	T <sub>STG</sub>	-65 ~ +150	°C

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	BV <sub>CB0</sub>	I <sub>c</sub> =-100μA,I <sub>E</sub> =0	-50			V
Collector-emitter breakdown voltage	BV <sub>CEO</sub>	I <sub>c</sub> =-10mA,I <sub>B</sub> =0	-50			V
Emitter-base breakdown voltage	BV <sub>EB0</sub>	I <sub>E</sub> =-10μA,I <sub>c</sub> =0	-5			V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> =-50V,I <sub>E</sub> =0			-100	nA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> =-5V,I <sub>c</sub> =0			-100	nA
DC current gain(note)	h <sub>FE1</sub>	V <sub>CE</sub> =-6V,I <sub>c</sub> =-2mA	70		400	
	h <sub>FE2</sub>	V <sub>CE</sub> =-6V,I <sub>c</sub> =-150mA	25			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =-100mA,I <sub>B</sub> =-10mA		-0.1	-0.3	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> =-100mA,I <sub>B</sub> =-10mA			-1.1	V
Current gain bandwidth product	f <sub>t</sub>	V <sub>CE</sub> =-10V,I <sub>c</sub> =-1mA	80			MHz
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V,I <sub>E</sub> =0,f=1MHz		4.0	7.0	pF
Noise Figure	NF	I <sub>c</sub> =-0.1mA,V <sub>CE</sub> =-6V R <sub>G</sub> =1kΩ,f=100Hz		0.5	6	dB

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## CLASSIFICATION OF hFE1

RANK	Y	G
RANGE	120-240	200-400

## TYPICAL CHARACTERISTIC CURVES

