

# UTC S8550 PNP EPITAXIAL SILICON TRANSISTOR

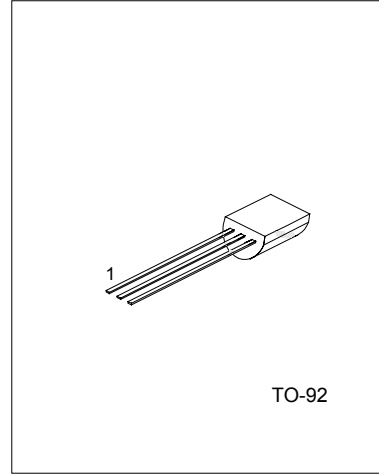
LOW VOLTAGE HIGH CURRENT  
SMALL SIGNAL PNP  
TRANSISTOR

## DESCRIPTION

The UTC S8550 is a low voltage high current small signal PNP transistor, designed for Class B push-pull audio amplifier and general purpose applications.

## FEATURES

- \*Collector current up to 700mA
- \*Collector-Emitter voltage up to 20 V
- \*Complementary to UTC S8050



1:EMITTER 2:BASE 3: COLLECTOR

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

PARAMETERS	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	-30	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-20	V
Emitter-Base Voltage	V <sub>EB0</sub>	-5	V
Collector Dissipation(Ta=25°C)	P <sub>c</sub>	1	W
Collector Current	I <sub>c</sub>	-700	mA
Junction Temperature	T <sub>j</sub>	150	°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	-30			V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>c</sub> =-1mA, I <sub>B</sub> =0	-20			V
Emitter-Base Breakdown Voltage	BV <sub>EB0</sub>	I <sub>E</sub> =-100μA, I <sub>c</sub> =0	-5			V
Collector Cut-Off Current	I <sub>CB0</sub>	V <sub>CB</sub> =-30V, I <sub>E</sub> =0			-1	μA
Emitter Cut-Off Current	I <sub>EB0</sub>	V <sub>EB</sub> =-5V, I <sub>c</sub> =0			-100	nA
DC Current Gain(note)	hFE1	V <sub>CE</sub> =-1V, I <sub>c</sub> =-1mA	100	110	400	
	hFE2	V <sub>CE</sub> =-1V, I <sub>c</sub> =-150 mA	120			
	hFE3	V <sub>CE</sub> =-1V, I <sub>c</sub> =-500mA	40			
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =-500mA, I <sub>B</sub> =-50mA			-0.5	V
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> =500mA, I <sub>B</sub> =-50mA			-1.2	V
Base-Emitter Saturation Voltage	V <sub>BE</sub>	V <sub>CE</sub> =-1V, I <sub>c</sub> =-10mA			-1.0	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =-10V, I <sub>c</sub> =-50mA	100			MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0 f=1MHz		9.0		pF

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## CLASSIFICATION OF hFE2

RANK	C	D	E
RANGE	120-200	160-300	280-400

## TYPICAL PERFORMANCE CHARACTERISTICS

Fig.1 Static characteristics

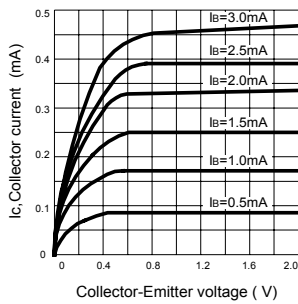


Fig.2 DC current Gain

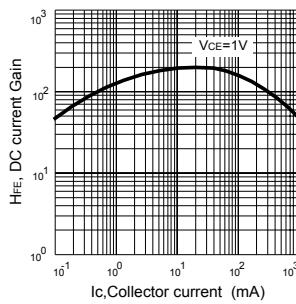


Fig.3 Base-Emitter on Voltage

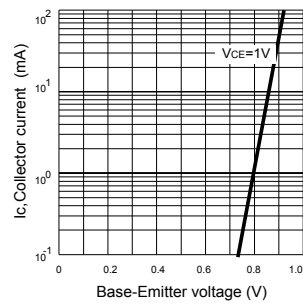


Fig.4 Saturation voltage

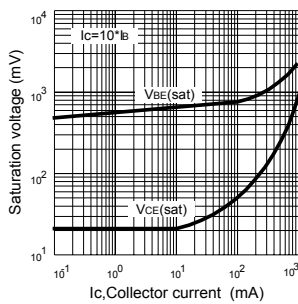


Fig.5 Current gain-bandwidth product

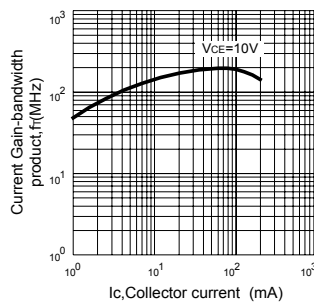


Fig.6 Collector output Capacitance

