# UTC UNISONIC TECHNOLOGIES CO., LTD

# **S8550**

# PNP SILICON TRANSISTOR

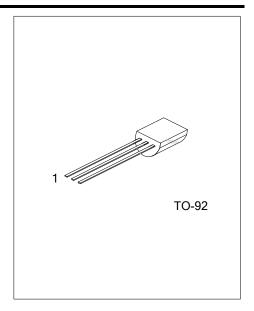
# LOW VOLTAGE HIGH **CURRENT SMALL SIGNAL PNP TRANSISTOR**

#### DESCRIPTION

The UTC \$8550 is a low voltage high current small signal PNP transistor, designed for Class B push-pull audio amplifier and general purpose applications.

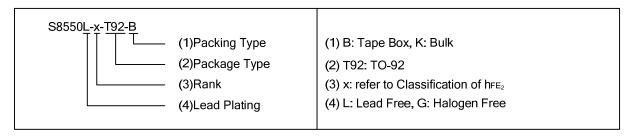
# **FEATURES**

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

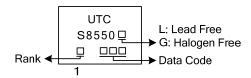


#### ORDERING INFORMATION

Order Number		Doolsono	Pin Assignment			Doolsing	
Lead Free Plating	Halogen Free	Package	1	2	3	Packing	
S8550L-x-T92-B	S8550G-x-T92-B	TO-92	Е	В	С	Tape Box	
S8550L-x-T92-K	S8550G-x-T92-K	TO-92	Ε	В	С	Bulk	



#### **MARKING**



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# ■ ABSOLUTE MAXIMUM RATING (T<sub>A</sub>=25°C, unless otherwise specified.)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	$V_{CBO}$	-30	V
Collector-Emitter Voltage	$V_{CEO}$	-20	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	I <sub>C</sub>	-700	mA
Collector Dissipation (T <sub>A</sub> =25°C)	Pc	1	W
Junction Temperature	TJ	150	°C
Storage Temperature	T <sub>STG</sub>	-65 ~ +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.

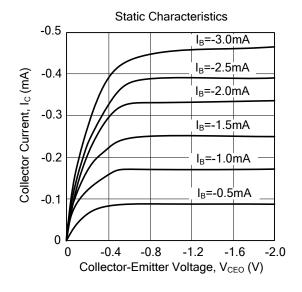
# ■ ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C, unless otherwise specified.)

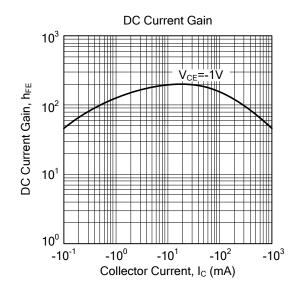
			1			
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_CBO$	$I_C = -100 \mu A, I_E = 0$	-30			V
Collector-Emitter Breakdown Voltage	$BV_CEO$	I <sub>C</sub> =-1mA, I <sub>B</sub> =0	-20			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E = -100 \mu A, I_C = 0$	-5			V
Collector Cut-Off Current	I <sub>CBO</sub>	V <sub>CB</sub> =-30V, I <sub>E</sub> =0			-1	μΑ
Emitter Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-5V, I <sub>C</sub> =0			-100	nA
	h <sub>FE1</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-1mA	100			
DC Current Gain	h <sub>FE2</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-150mA	120		400	
	h <sub>FE3</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-500mA	40			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA			-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	I <sub>C</sub> =500mA, I <sub>B</sub> =-50mA			-1.2	V
Base-Emitter Saturation Voltage	$V_{BE}$	V <sub>CE</sub> =-1V, I <sub>C</sub> =-10mA			-1.0	V
Current Gain Bandwidth Product	$f_{T}$	$V_{CE}$ =-10V, $I_{C}$ =-50mA	100			MHz
Output Capacitance	Cob	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f =1MHz		9.0		pF

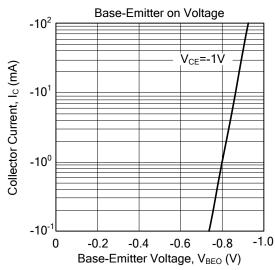
# ■ CLASSIFICATION OF hFE2

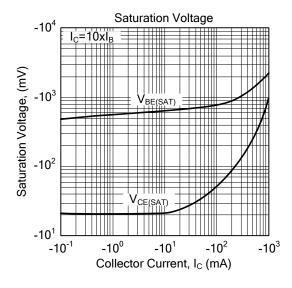
RANK	С	D	E
RANGE	120-200	160-300	280-400

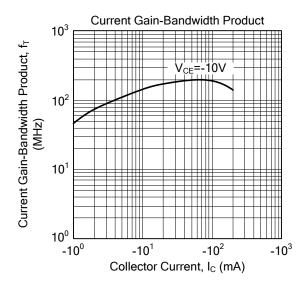
### ■ TYPICAL CHARACTERISTICS

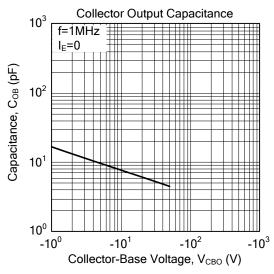












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