



## S8550

## PNP SILICON TRANSISTOR

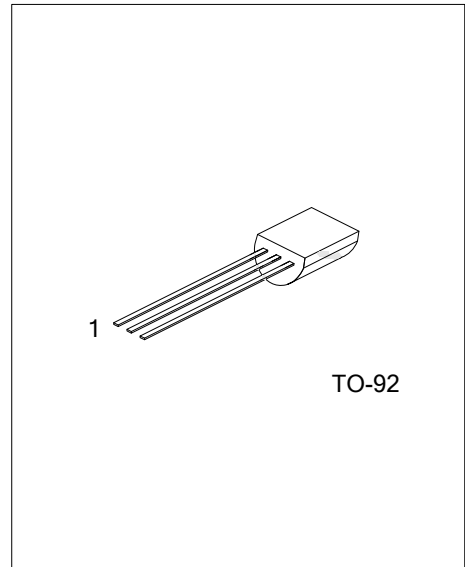
### LOW VOLTAGE HIGH CURRENT SMALL SIGNAL PNP TRANSISTOR

#### 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

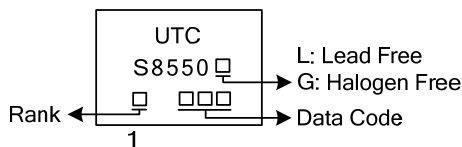


#### ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free Plating	Halogen Free		1	2	3	
S8550L-x-T92-B	S8550G-x-T92-B	TO-92	E	B	C	Tape Box
S8550L-x-T92-K	S8550G-x-T92-K	TO-92	E	B	C	Bulk

<p>S8550L-x-T92-B</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Lead Plating</p>	<p>(1) B: Tape Box, K: Bulk (2) T92: TO-92 (3) x: refer to Classification of <math>h_{FE2}</math> (4) L: Lead Free, G: Halogen Free</p>
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#### MARKING



■ ABSOLUTE MAXIMUM RATING ( $T_A=25^\circ\text{C}$ , 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	$I_C$	-700	mA
Collector Dissipation ( $T_A=25^\circ\text{C}$ )	$P_C$	1	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-65 ~ +150	$^\circ\text{C}$

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.

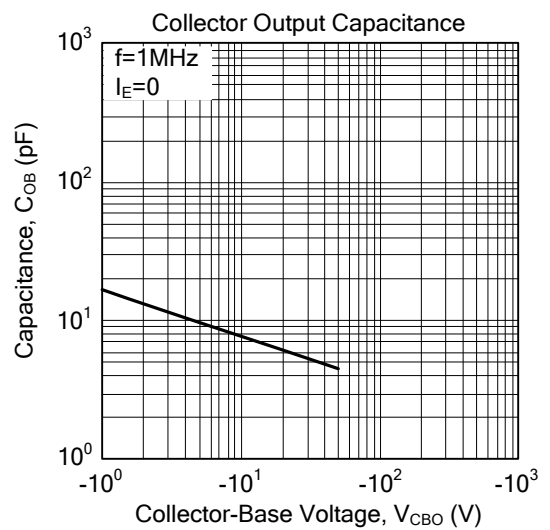
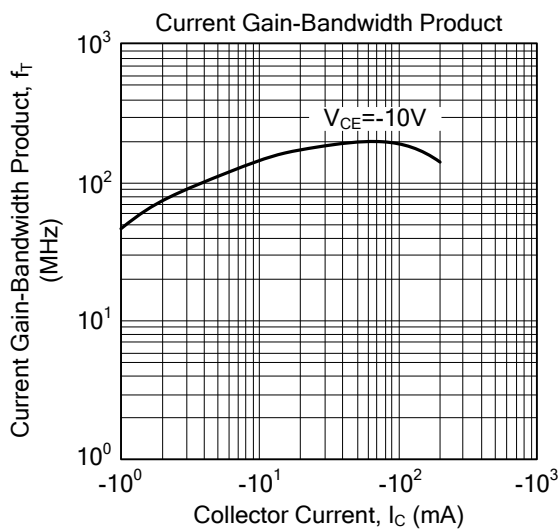
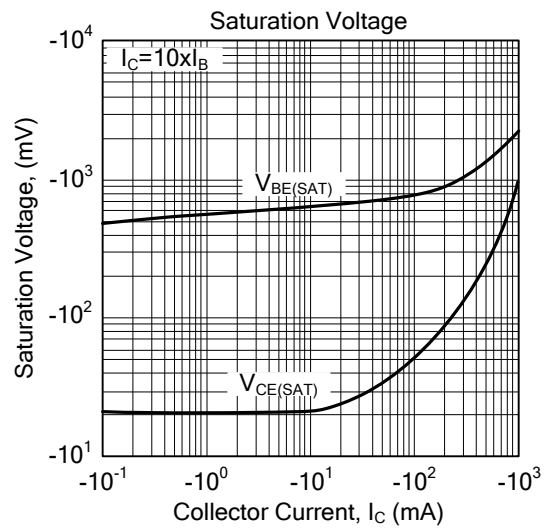
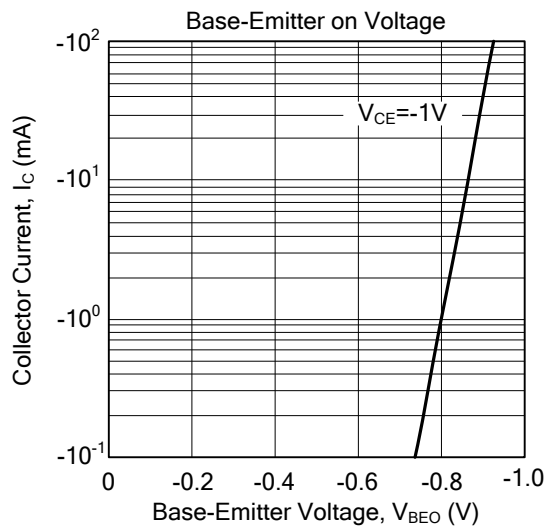
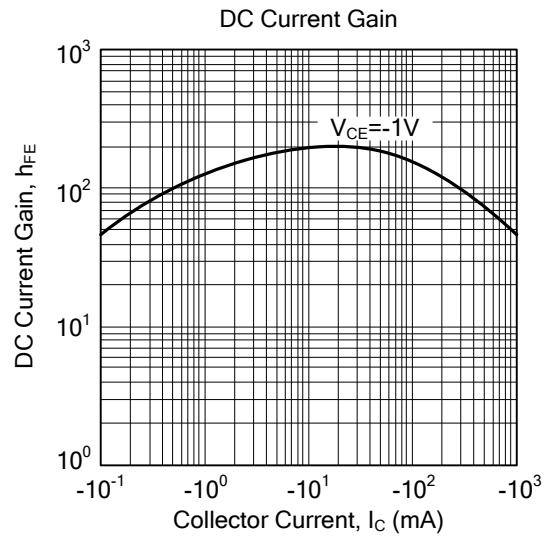
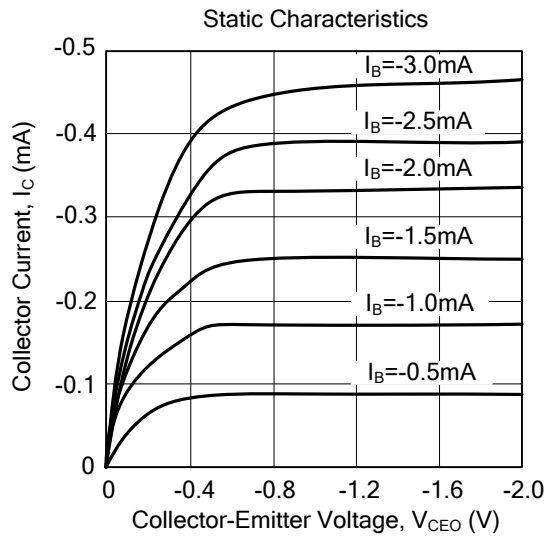
■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ , unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C = -100\mu\text{A}$ , $I_E = 0$	-30			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C = -1\text{mA}$ , $I_B = 0$	-20			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E = -100\mu\text{A}$ , $I_C = 0$	-5			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = -30\text{V}$ , $I_E = 0$			-1	$\mu\text{A}$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = -5\text{V}$ , $I_C = 0$			-100	nA
DC Current Gain	$h_{FE1}$	$V_{CE} = -1\text{V}$ , $I_C = -1\text{mA}$	100			
	$h_{FE2}$	$V_{CE} = -1\text{V}$ , $I_C = -150\text{mA}$	120		400	
	$h_{FE3}$	$V_{CE} = -1\text{V}$ , $I_C = -500\text{mA}$	40			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = -500\text{mA}$ , $I_B = -50\text{mA}$			-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = 500\text{mA}$ , $I_B = -50\text{mA}$			-1.2	V
Base-Emitter Saturation Voltage	$V_{BE}$	$V_{CE} = -1\text{V}$ , $I_C = -10\text{mA}$			-1.0	V
Current Gain Bandwidth Product	$f_T$	$V_{CE} = -10\text{V}$ , $I_C = -50\text{mA}$	100			MHz
Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}$ , $I_E = 0$ , $f = 1\text{MHz}$		9.0		pF

■ CLASSIFICATION OF  $h_{FE2}$

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

■ TYPICAL CHARACTERISTICS



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