

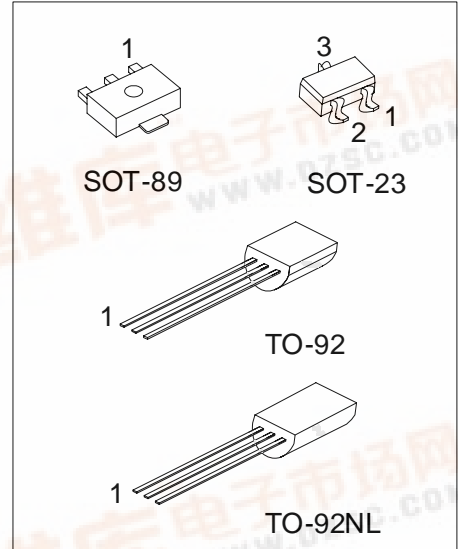


# UNISONIC TECHNOLOGIES CO., LTD

## HE8550

### PNP SILICON TRANSISTOR

LOW VOLTAGE HIGH CURRENT SMALL SIGNAL PNP TRANSISTOR



#### DESCRIPTION

The UTC **HE8550** is a low voltage high current small signal PNP transistor, designed for Class B push-pull 2W audio amplifier for portable radio and general purpose applications.

#### FEATURES

- \* Collector current up to 1.5A
- \* Collector-Emitter voltage up to 25 V
- \* Complimentary to UTC **HE8050**

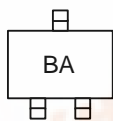
\*Pb-free plating product number: HE8550L

#### ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
HE8550-x-AB3-R	HE8550L-x-AB3-R	SOT-89	B	C	E	Tape Reel
HE8550-x-AE3-R	HE8550L-x-AE3-R	SOT-23	E	B	C	Tape Reel
HE8550-x-T92-B	HE8550L-x-T92-B	TO-92	E	C	B	Tape Box
HE8550-x-T92-K	HE8550L-x-T92-K	TO-92	E	C	B	Bulk
HE8550-x-T9N-B	HE8550L-x-T9N-B	TO-92NL	E	C	B	Tape Box
HE8550-x-T9N-K	HE8550L-x-T9N-K	TO-92NL	E	C	B	Bulk
HE8550-x-T9N-R	HE8550L-x-T9N-R	TO-92NL	E	C	B	Tape Reel

<p>HE8550L-x-AE3-R</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Rank</p> <p>(4)Lead Plating</p>	<p>(1) B: Tape Box, K: Bulk, R: Tape Reel</p> <p>(2) AB3: SOT-89, AE3: SOT-23, T92: TO-92, T9N: TO-92NL</p> <p>(3) x: refer to Classification of <math>h_{FE2}</math></p> <p>(4) L: Lead Free Plating, Blank: Pb/Sn</p>
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#### MARKING(For SOT-23 Package)



# HE8550

## PNP SILICON TRANSISTOR

■ ABSOLUTE MAXIMUM RATING (Ta=25 , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	-40	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-25	V
Emitter-Base Voltage	V <sub>EBO</sub>	-6	V
Collector Dissipation (Ta=25 )	SOT-23	350	mW
	SOT-89	0.5	W
	TO-92/TO-92NL	1	W
Collector Current	I <sub>C</sub>	-1.5	A
Junction Temperature	T <sub>J</sub>	+150	
Operating Ambient Temperature	T <sub>OPR</sub>	-40 ~ +150	
Storage Temperature	T <sub>STG</sub>	-65 ~ +150	

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.

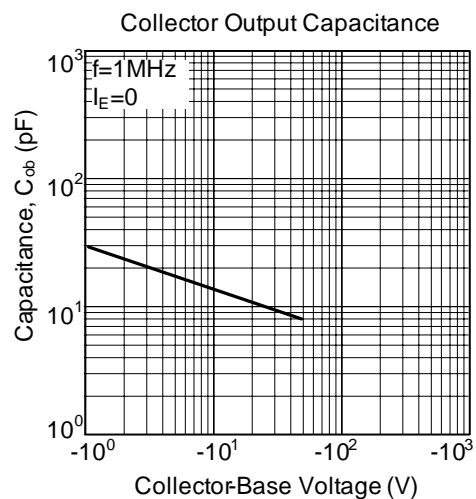
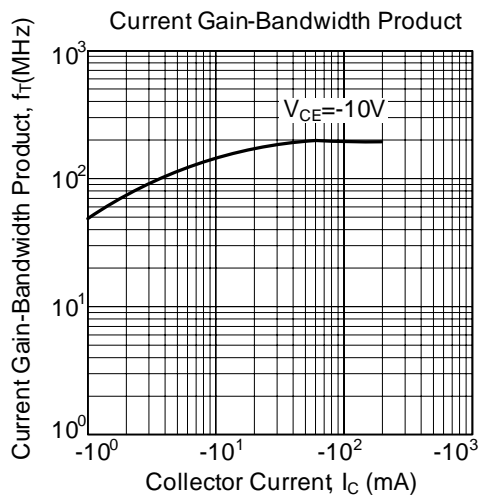
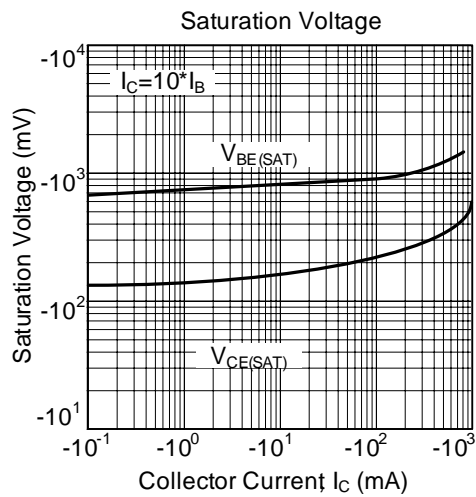
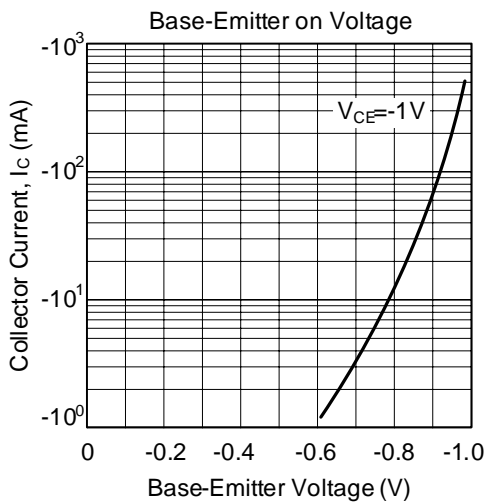
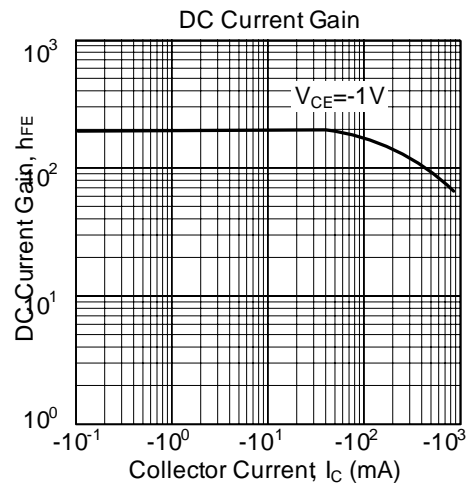
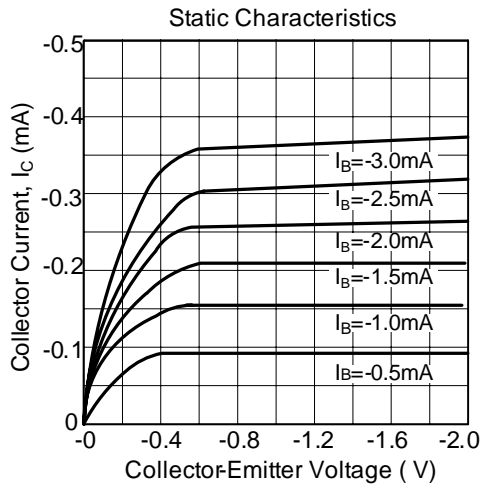
■ ELECTRICAL CHARACTERISTICS (Ta=25 , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	I <sub>C</sub> =-100μA, I <sub>E</sub> =0	-40			V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> =-2mA, I <sub>B</sub> =0	-25			V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> =-100μA, I <sub>C</sub> =0	-6			V
Collector Cut-Off Current	I <sub>CBO</sub>	V <sub>CB</sub> =-35V, I <sub>E</sub> =0			-100	nA
Emitter Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-6V, I <sub>C</sub> =0			-100	nA
DC Current Gain	h <sub>FE1</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-5mA	45	170		
	h <sub>FE2</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-100mA	85	160	500	
	h <sub>FE3</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-800mA	40	80		
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> =-800mA, I <sub>B</sub> =-80mA		-0.28	-0.5	V
Base-Emitter Saturation Voltage	V <sub>BE(SAT)</sub>	I <sub>C</sub> =-800mA, I <sub>B</sub> =-80mA		-0.98	-1.2	V
Base-Emitter Voltage	V <sub>BE</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-10mA		-0.66	-1.0	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =-10V, I <sub>C</sub> =-50mA	100	190		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, I <sub>E</sub> =0 f=1MHz		9.0		pF

■ CLASSIFICATION OF h<sub>FE2</sub>

RANK	C	D	E
RANGE	120-200	160-300	250-500

## TYPICAL CHARACTERISTICS



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