



## HE8550

## PNP SILICON TRANSISTOR

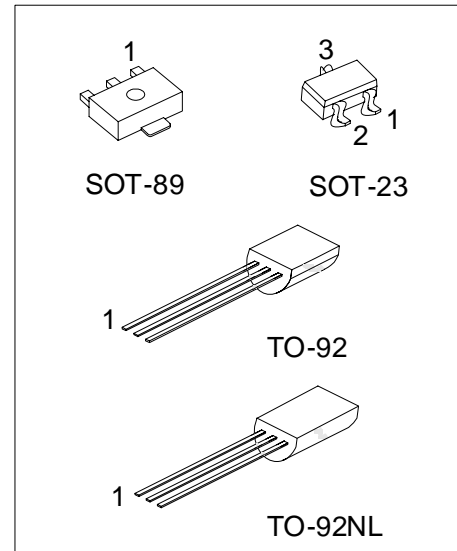
### LOW VOLTAGE HIGH CURRENT SMALL SIGNAL PNP TRANSISTOR

#### 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**



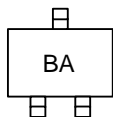
\*Pb-free plating product number: HE8550L

#### 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) 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)



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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		$V_{CBO}$	-40	V
Collector-Emitter Voltage		$V_{CEO}$	-25	V
Emitter-Base Voltage		$V_{EBO}$	-6	V
Collector Dissipation (Ta=25 )	SOT-23	$P_C$	350	mW
	SOT-89		0.5	W
	TO-92/TO-92NL		1	W
Collector Current		$I_C$	-1.5	A
Junction Temperature		$T_J$	+150	
Operating Ambient Temperature		$T_{OPR}$	-40 ~ +150	
Storage Temperature		$T_{STG}$	-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.

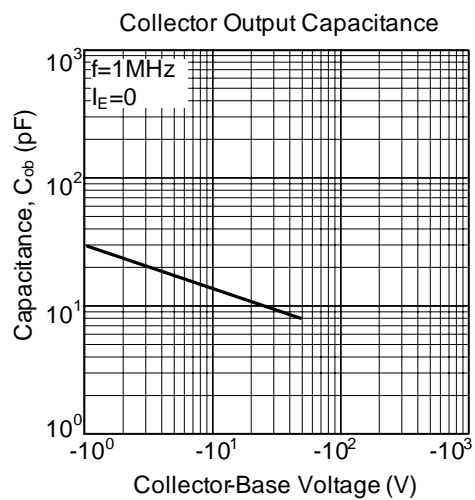
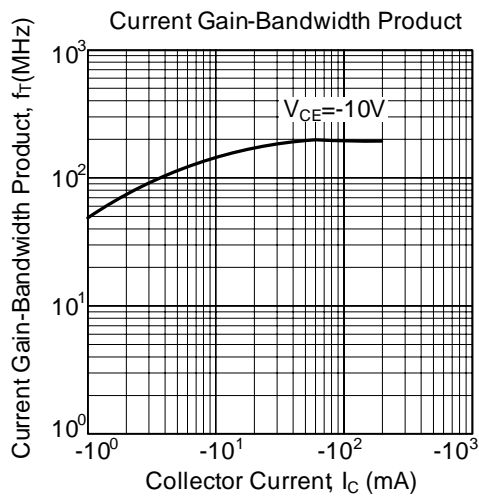
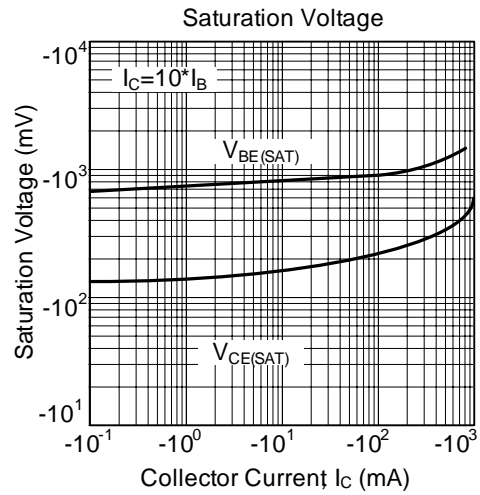
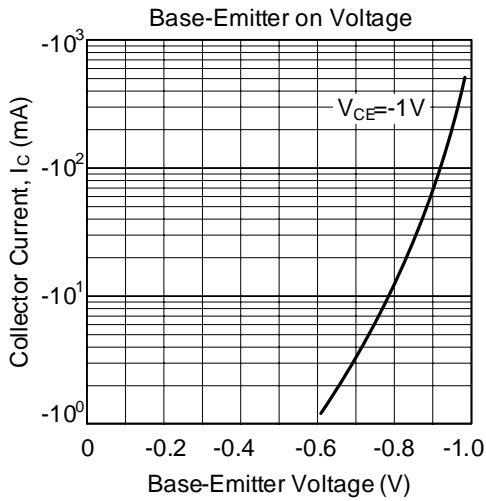
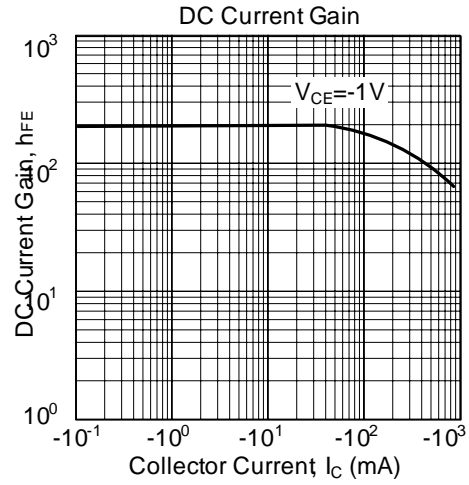
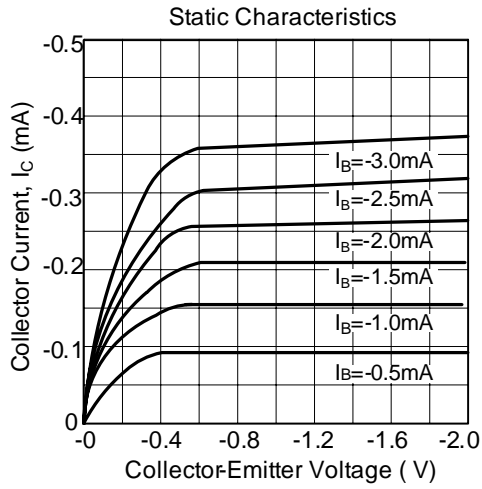
■ ELECTRICAL CHARACTERISTICS (Ta=25 , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=-100\mu A, I_E=0$	-40			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=-2mA, I_B=0$	-25			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E=-100\mu A, I_C=0$	-6			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=-35V, I_E=0$			-100	nA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=-6V, I_C=0$			-100	nA
DC Current Gain	$h_{FE1}$	$V_{CE}=-1V, I_C=-5mA$	45	170		
	$h_{FE2}$	$V_{CE}=-1V, I_C=-100mA$	85	160	500	
	$h_{FE3}$	$V_{CE}=-1V, I_C=-800mA$	40	80		
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-800mA, I_B=-80mA$		-0.28	-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=-800mA, I_B=-80mA$		-0.98	-1.2	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=-1V, I_C=-10mA$		-0.66	-1.0	V
Current Gain Bandwidth Product	$f_T$	$V_{CE}=-10V, I_C=-50mA$	100	190		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=-10V, I_E=0 f=1MHz$		9.0		pF

■ CLASSIFICATION OF  $h_{FE2}$

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

### TYPICAL CHARACTERISTICS



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