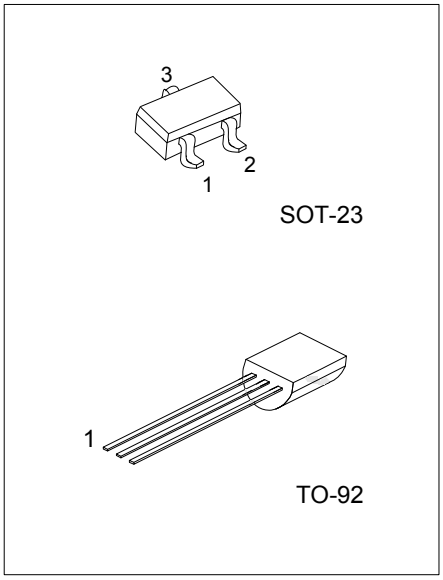
8550S

PNP SILICON TRANSISTOR

LOW VOLTAGE HIGH CURRENT SMALL SIGNAL PNP TRANSISTOR



■ DESCRIPTION

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

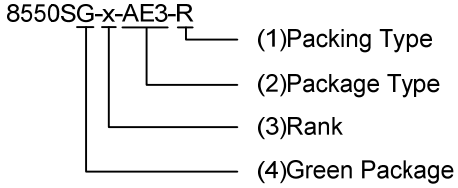
■ FEATURES

*Collector current up to 700mA
*Collector-Emitter voltage up to 20 V
*Complimentary to 8050S

■ ORDERING INFORMATION

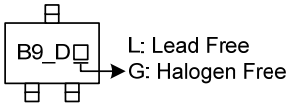
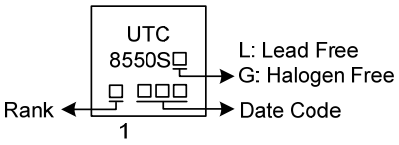
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen-Free		1	2	3	
8550SL-x-AE3-R	8550SG-x-AE3-R	SOT-23	B	E	C	Tape Reel
8550SL-x-T92-B	8550SG-x-T92-B	TO-92	E	C	B	Tape Box
8550SL-x-T92-K	8550SG-x-T92-K	TO-92	E	C	B	Bulk

Note: Pin Assignment: B: Base E: Emitter C: Collector



(1) R: Tape Reel, B: Tape Box, K: Bulk
(2) AE3: SOT-23, T92: TO-92
(3) x: refer to Classification of h_{FE2}
(4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING

SOT-23	TO-92
	

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATING	UNITS
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(Ta=25°C)	SOT-23	P_C	350	mW
	TO-92		1	W
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-40 ~ +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_A= 25°C, unless otherwise specified)

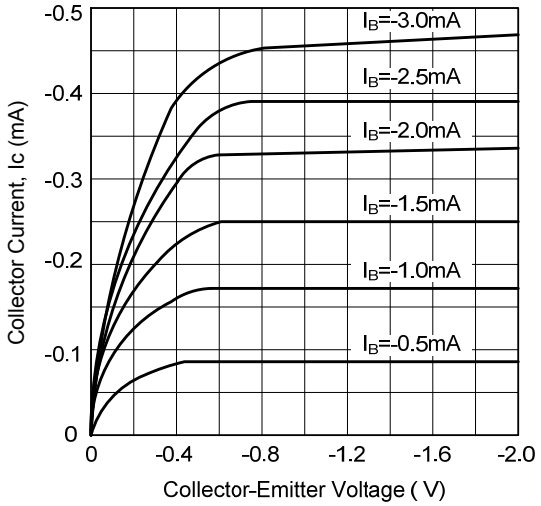
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=-100μA, I_E=0	-30			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=-1mA, I_B=0	-20			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=-100μA, I_C=0	-5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=-30V, I_E=0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

■ CLASSIFICATION OF h_{FE2}

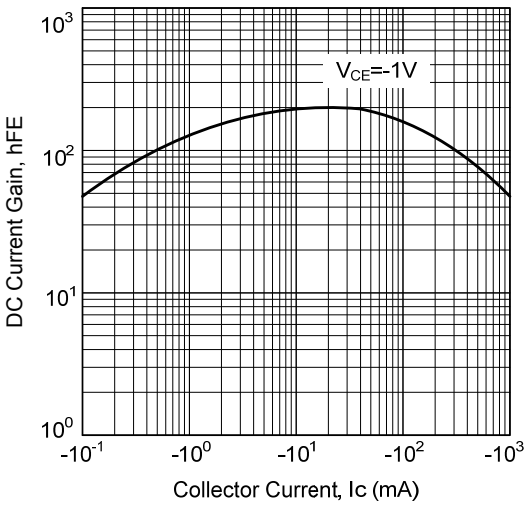
RANK	C	D	E
RANGE	120-200	160-300	280-400

■ TYPICAL CHARACTERISTICS

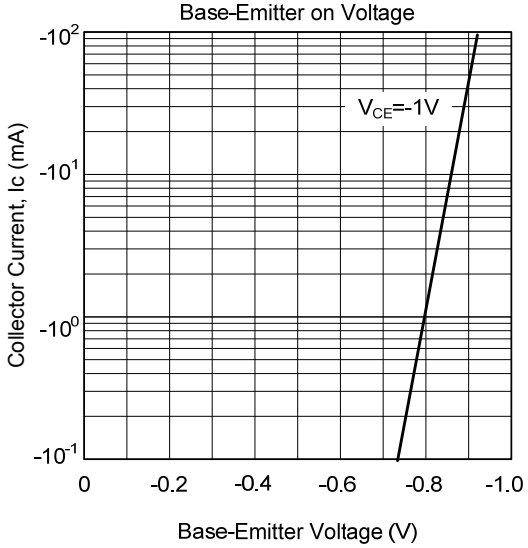
Static Characteristics



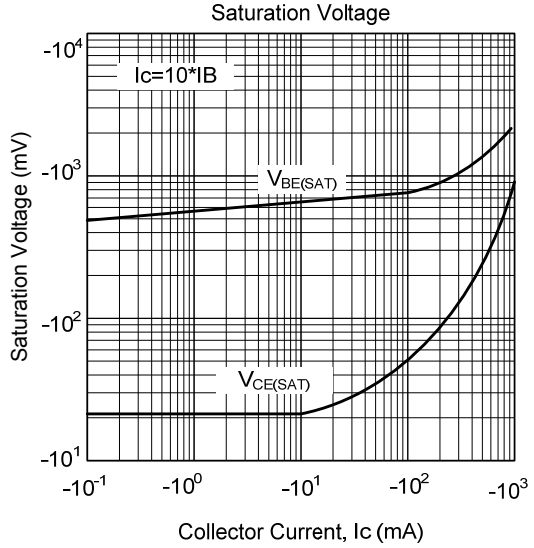
DC Current Gain



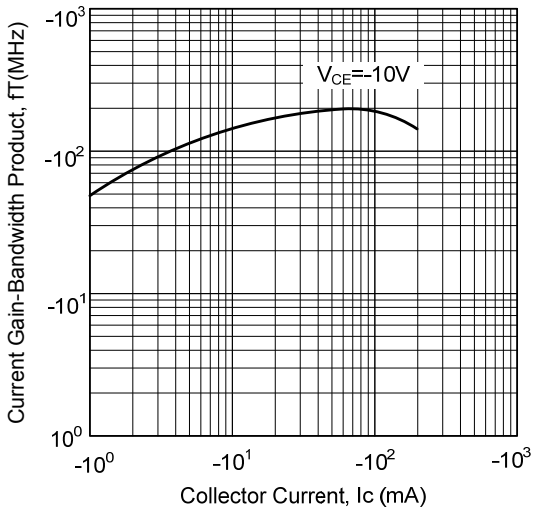
Base-Emitter on Voltage



Saturation Voltage



Current Gain-Bandwidth Product



Collector Output Capacitance