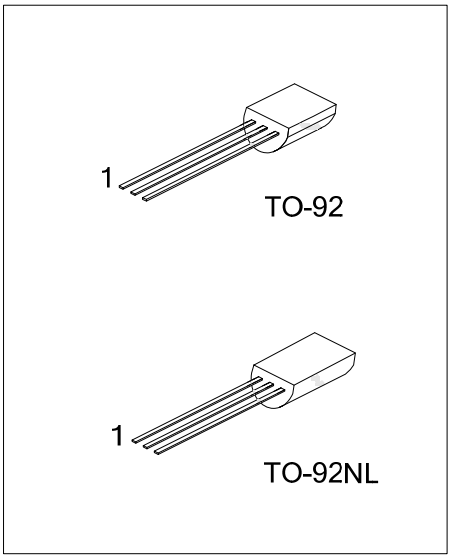
HE8551

PNP SILICON TRANSISTOR

LOW VOLTAGE HIGH CURRENT SMALL SIGNAL PNP TRANSISTOR



■ DESCRIPTION

The UTC **HE855**1 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 **HE8051**

■ ORDERING INFORMATION

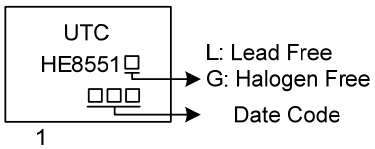
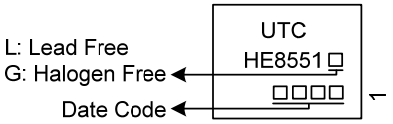
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
HE8551L-x-T92-B	HE8551G-x-T92-B	TO-92	E	B	C	Tape Box
HE8551L-x-T92-K	HE8551G-x-T92-K	TO-92	E	B	C	Bulk
HE8551L-x-T92-R	HE8551G-x-T92-R	TO-92	E	B	C	Tape Reel
HE8551L-x-T9N-B	HE8551G-x-T9N-B	TO-92NL	E	C	B	Tape Box
HE8551L-x-T9N-K	HE8551G-x-T9N-K	TO-92NL	E	C	B	Bulk
HE8551L-x-T9N-R	HE8551G-x-T9N-R	TO-92NL	E	C	B	Tape Reel

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

HE8551G-x-T92-B
(1)Packing Type
(2)Package Type
(3)Rank
(4)Green Package

(1) B: Tape Box, K: Bulk, R: Tape Reel
(2) T92: TO-92, T9N: TO-92NL
(3) x: refer to Classification of h_{FE2}
(4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING

TO-92	TO-92NL
	

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, 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 (T_A=25°C)	TO-92	P_C	0.625	W
	TO-92NL		0.9	W
Collector Current		I_C	-1.5	A
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-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_J=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	-40			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=-2mA, I_B=0	-25			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=-100μA, 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

Fig. 1 Static Characteristics

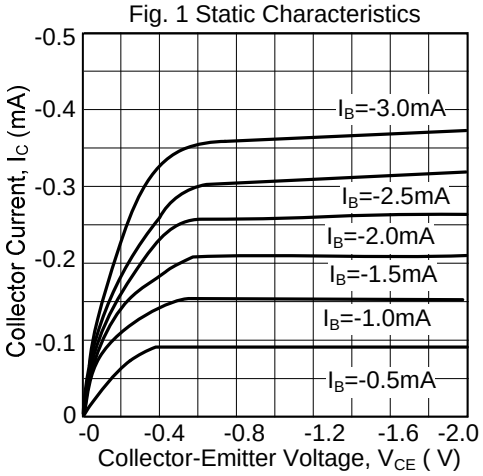


Fig. 2 DC Current Gain

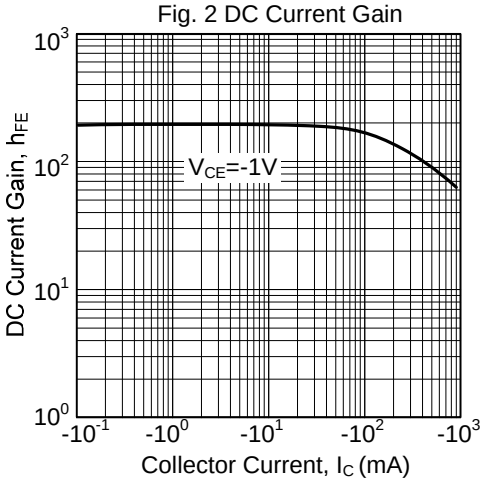


Fig. 3 Base-Emitter On Voltage

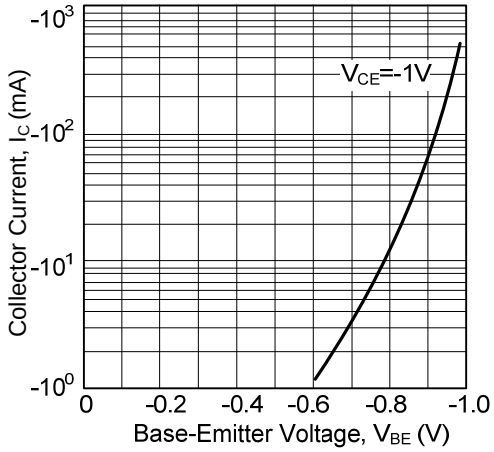


Fig. 4 Saturation Voltage

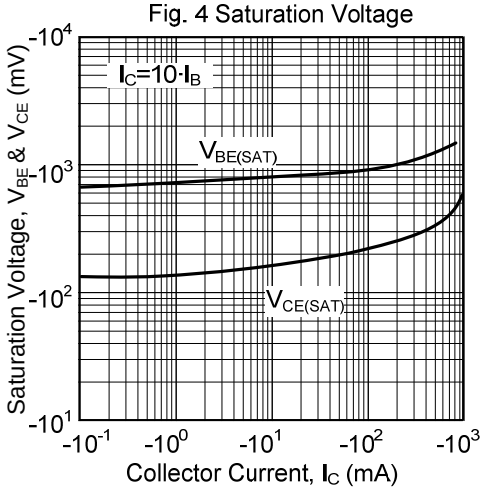


Fig. 5 Current Gain-Bandwidth Product

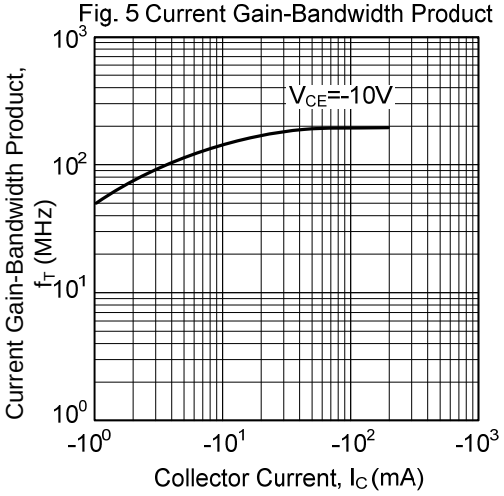
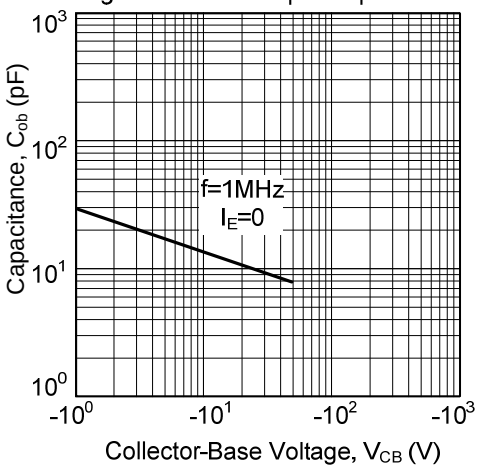


Fig. 6 Collector Output Capacitance



■ TYPICAL CHARACTERISTICS(Cont.)