



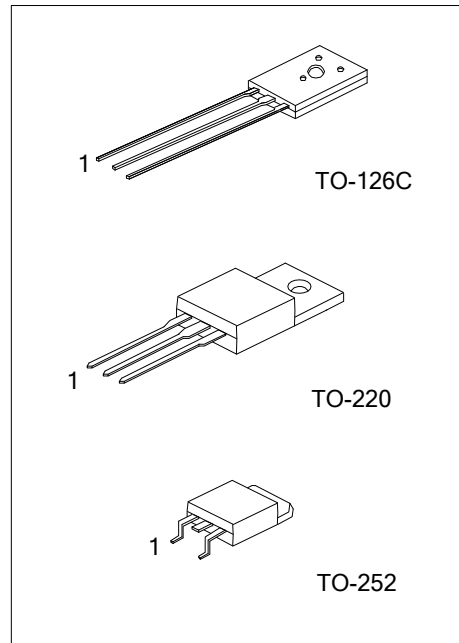
2SB857

PNP SILICON TRANSISTOR

SILICON PNP TRANSISTOR

DESCRIPTION

Low frequency power amplifier.



ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SB857L-x-T6C-K	2SB857G-x-T6C-K	TO-126C	E	C	B	Bulk
2SB857L-x-TA3-T	2SB857G-x-TA3-T	TO-220	B	C	E	Tube
2SB857L-x-TN3-R	2SB857G-x-TN3-R	TO-252	B	C	E	Tape Reel

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

<p>2SB857G-x-T6C-K</p>	<p>(1) K: Bulk, T: Tube, R: Tape Reel (2) T6C: TO-126C, TA3: TO-220, TN3: TO-252 (3) x: refer to Classification of h_{FE2} (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING

TO-126C	TO-220 / TO-252

■ **ABSOLUTE MAXIMUM RATING** ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltages		V_{CBO}	-130	V
Collector-Emitter Voltage		V_{CEO}	-100	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-4	A
Collector Current (I_C Peak)		$I_{C(PEAK)}$	-8	A
Total Power Dissipation ($T_C=25^{\circ}\text{C}$)	TO-126C	P_D	10	W
	TO-220		40	W
	TO-252		20	W
Junction Temperature		T_J	+150	$^{\circ}\text{C}$
Storage Temperature		T_{STG}	-50 ~ +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)

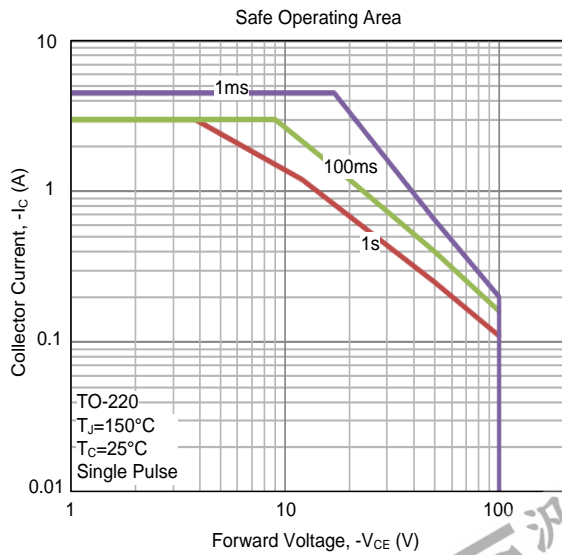
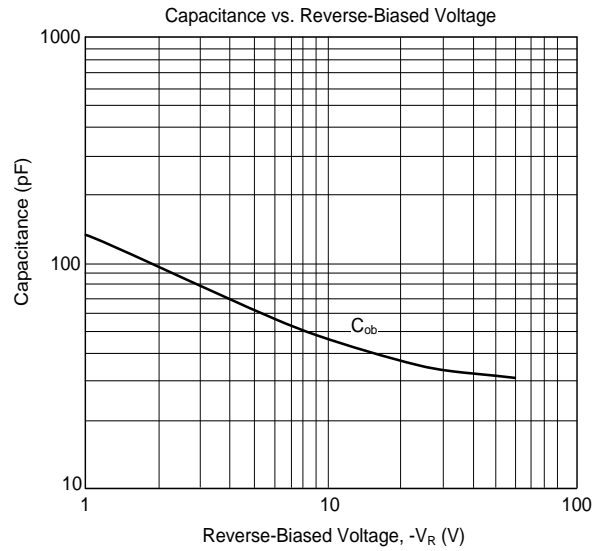
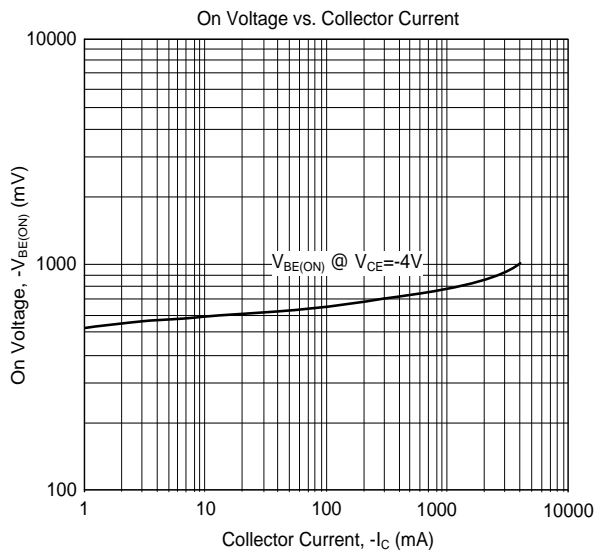
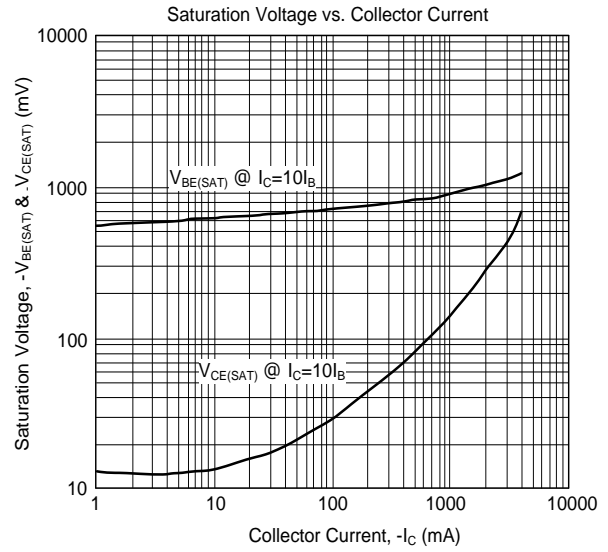
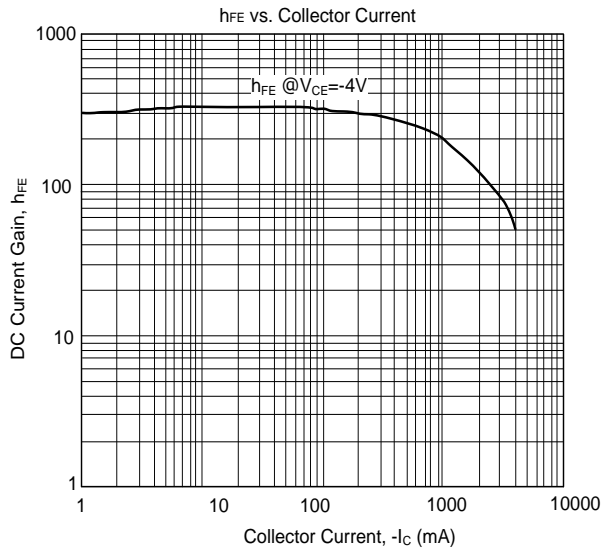
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=-10\mu\text{A}$, $I_E=0$	-130			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-50\text{mA}$, $I_B=0$	-100			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=-10\mu\text{A}$, $I_C=0$	-5			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-2\text{A}$, $I_B=-0.2\text{A}$ (Note)			-1	V
Base-Emitter Saturation Voltage	$V_{BE(ON)}$	$V_{CE}=-4\text{V}$, $I_C=-1\text{A}$ (Note)			-1	V
Collector Cut-off Current	I_{CBO}	$V_{CB}=-130\text{V}$, $I_C=0$			-1	μA
DC Current Gain	h_{FE1}	$V_{CE}=-4\text{V}$, $I_C=-0.1\text{A}$ (Note)	35			
	h_{FE2}	$V_{CE}=-4\text{V}$, $I_C=-1\text{A}$ (Note)	60		320	
Transition Frequency	f_T	$V_{CE}=-4\text{V}$, $I_C=-500\text{mA}$, $f=100\text{MHz}$		15		MHz

Note: Pulse Test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$.

■ **CLASSIFICATION OF h_{FE2}**

CLASSIFICATION	B	C	D
RANGE	60 ~ 120	100 ~ 200	160 ~ 320

TYPICAL CHARACTERISTICS



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