



2SB647

PNP EPITAXIAL SILICON TRANSISTOR

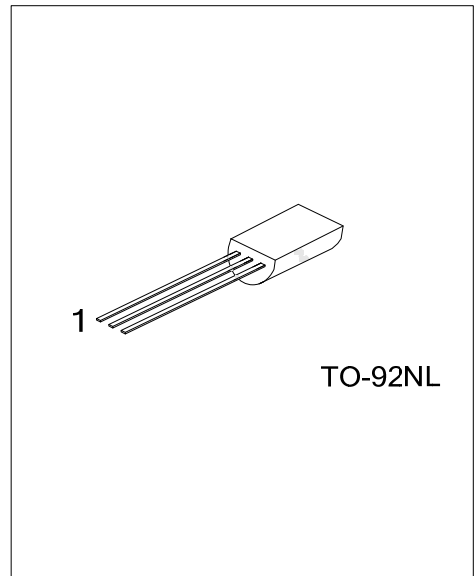
SILICON PNP EPITAXIAL

DESCRIPTION

The UTC **2SB647** is a PNP epitaxial silicon transistor, which can be used as a low frequency power amplifier.

APPLICATION

* Low frequency power amplifier

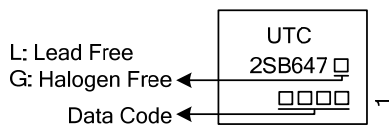


ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SB647L-x-T9N-B	2SB647G-x-T9N-B	TO-92NL	E	C	B	Tape Box
2SB647L-x-T9N-K	2SB647G-x-T9N-K	TO-92NL	E	C	B	Bulk

<p>2SB647G-x-T9N-B</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Green Package</p>	<p>(1) B: Tape Box, K: Bulk (2) T9N: TO-92NL (3) refer to CLASSIFICATION OF h_{FE1} (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



FLYING 汎翔國際有限公司
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■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-120	V
Collector-Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-1	A
Collector Peak Current	I_{CP}	-2	A
Collector Power Dissipation	P_C	0.9	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$

Notes: 1. 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.

2. $PW \leq 10\text{ms}$, Duty cycle $\leq 20\%$

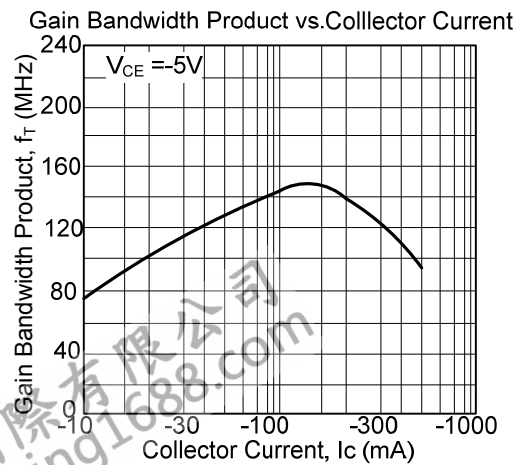
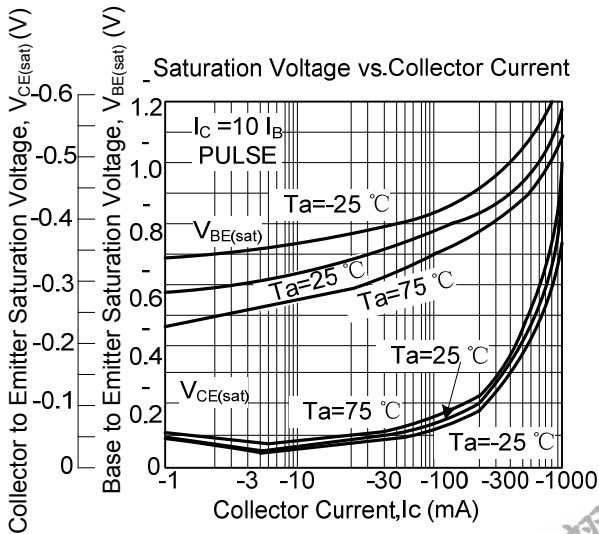
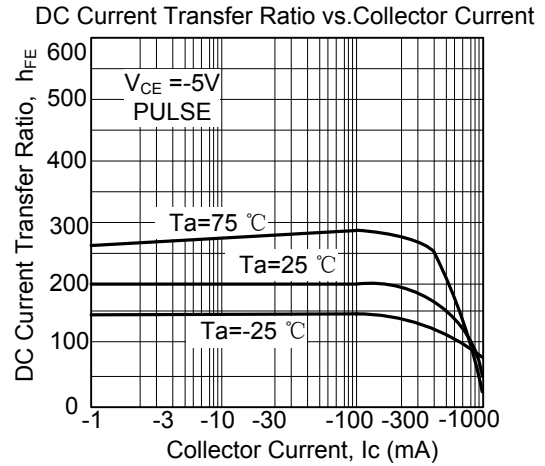
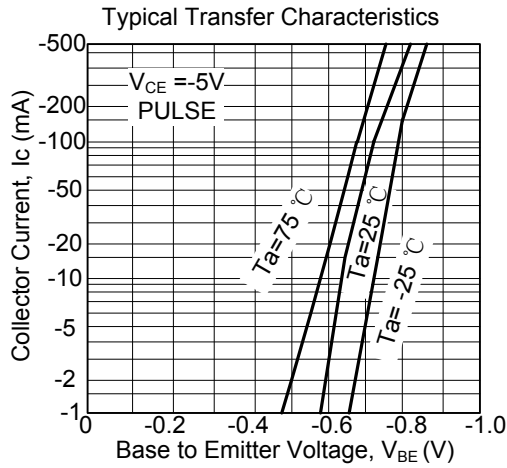
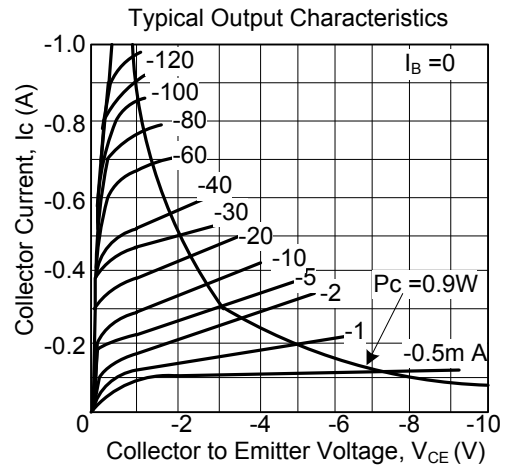
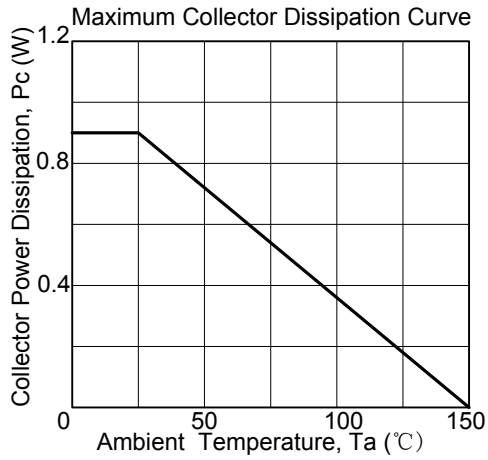
■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = -10\mu\text{A}$, $I_E = 0$	-120			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -1\text{mA}$, $R_{BE} = \infty$	-80			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -10\mu\text{A}$, $I_C = 0$	-6			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -120\text{V}$, $I_E = 0$			-500	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -6\text{V}$, $I_C = 0$			-500	nA
DC Current Transfer Ratio	h_{FE1}	$V_{CE} = -5\text{V}$, $I_C = -150\text{mA}$ (note)	60		320	
	h_{FE2}	$V_{CE} = -5\text{V}$, $I_C = -500\text{mA}$ (note)	40			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$ (note)			-0.5	V
Base to Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$			-1.1	V
Gain Bandwidth Product	f_T	$V_{CE} = -5\text{V}$, $I_C = -150\text{mA}$		140		MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		20		pF

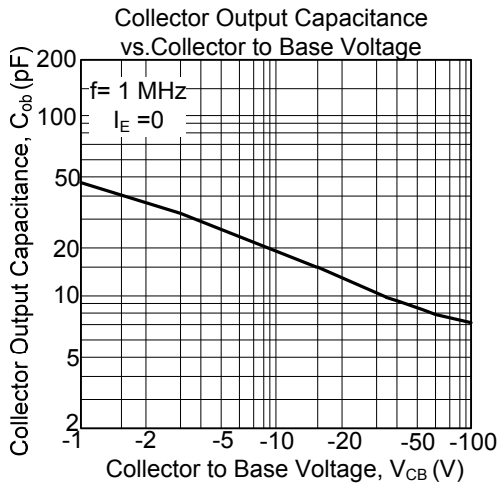
■ CLASSIFICATION OF h_{FE1}

RANK	B	C	D
RANGE	60-120	100-200	160-320

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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