



2SB647

PNP EPITAXIAL SILICON TRANSISTOR

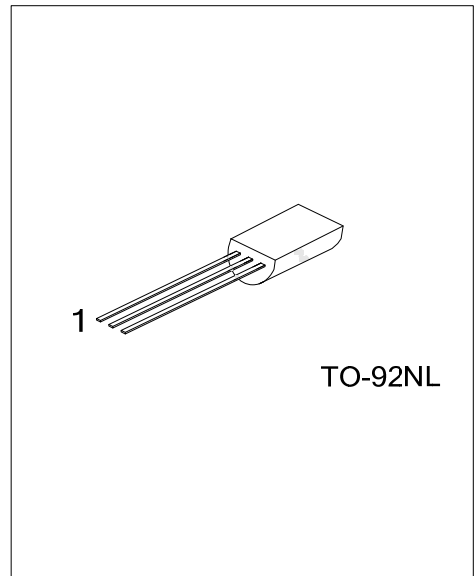
SILICON PNP EPITAXIAL

■ 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>2SB647L-x-T9N-B</p>	<p>(1) B: Tape Box, K: Bulk (2) T9N: TO-92NL (3) refer to CLASSIFICATION OF h_{FE1} (4) L: Lead Free, G: Halogen Free</p>
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■ MARKING INFORMATION

PACKAGE	MARKING
TO-92NL	

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°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	°C
Storage Temperature	T _{STG}	-55 ~ +150	°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≤10ms, Duty cycle≤20%

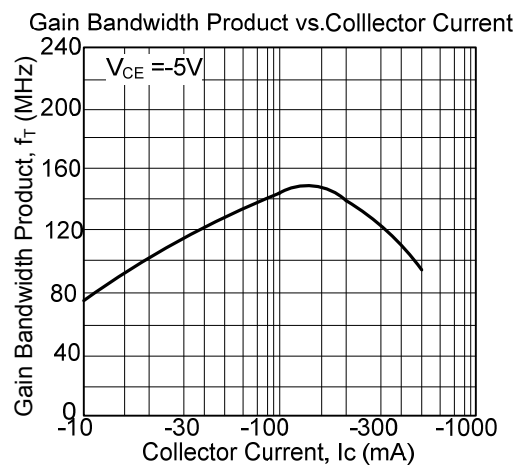
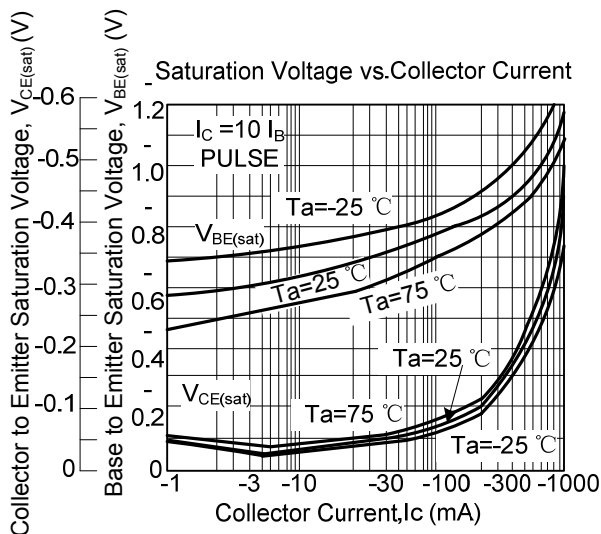
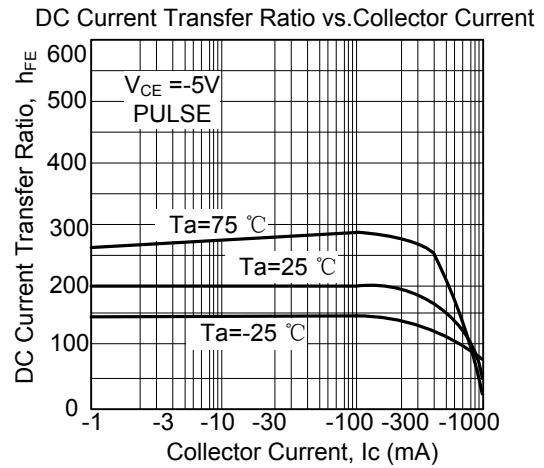
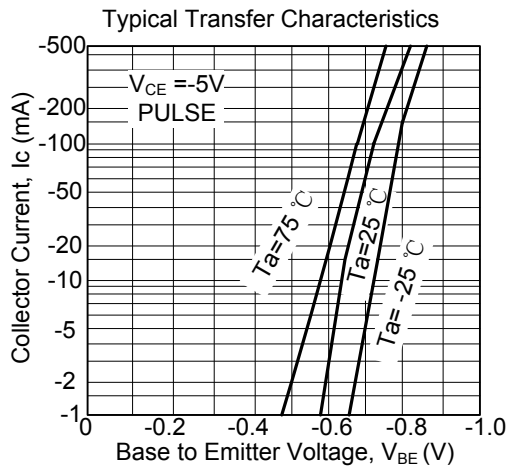
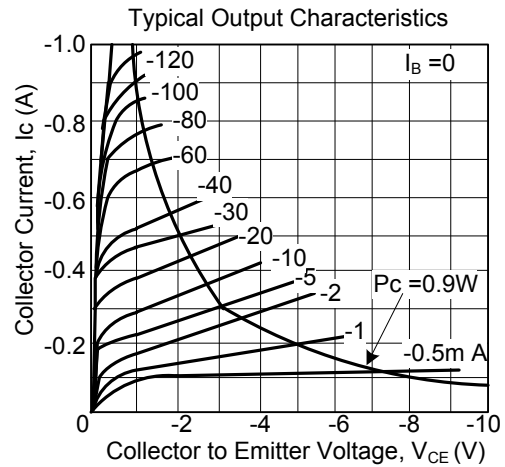
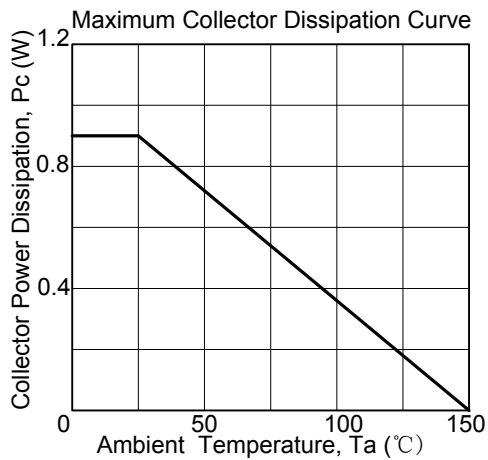
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CBO}	I _C = -10μA, I _E =0	-120			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C = -1mA, R _{BE} =∞	-80			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E = -10μA, I _C =0	-6			V
Collector Cut-Off Current	I _{CBO}	V _{CB} = -120V, I _E =0			-500	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} =-6V, I _C =0			-500	nA
DC Current Transfer Ratio	h _{FE1}	V _{CE} = -5V, I _C = -150mA (note)	60		320	
	h _{FE2}	V _{CE} = -5V, I _C = -500mA (note)	40			
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C = -500mA, I _B = -50mA (note)			-0.5	V
Base to Emitter Saturation Voltage	V _{BE(SAT)}	I _C =500mA, I _B =50mA			-1.1	V
Gain Bandwidth Product	f _T	V _{CE} = -5V, I _C = -150mA		140		MHz
Collector Output Capacitance	C _{ob}	V _{CB} = -10V, I _E =0, f=1MHz		20		pF

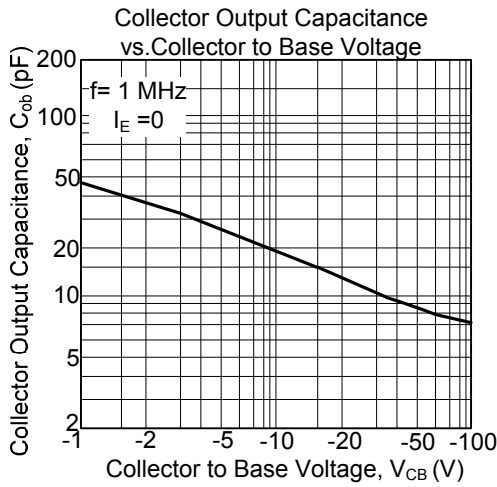
■ CLASSIFICATION OF h_{FE1}

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

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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