

# UTC2SA1627 PNP EPITAXIAL SILICON TRANSISTOR

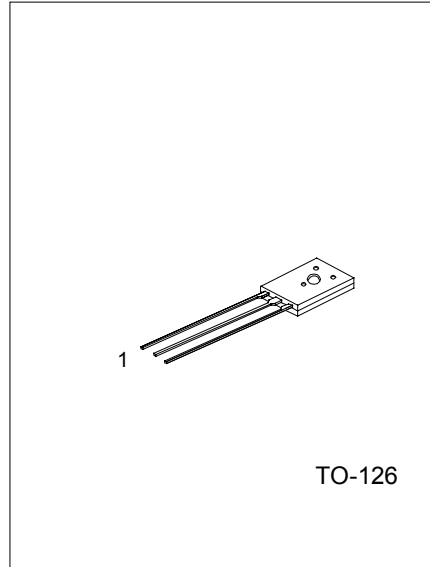
## PNP EPITAXIAL SILICON TRANSISTOR

### DESCRIPTION

The UTC 2SA1627 is designed for general purpose amplifier and high speed switching applications.

### FEATURES

- \*High voltage
- \*Low collector saturation voltage.
- \*High-speed switching



1:EMITTER 2:COLLECTOR 3:BASE

### ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	-600	V
Collector-Emitter Voltage	V <sub>CE0</sub>	-600	V
Emitter-Base Voltage	V <sub>EB0</sub>	-7.0	V
Collector Power Dissipation	P <sub>c</sub>	1.0	W
Collector Current(DC)	I <sub>c</sub>	-1.0	A
Collector Current(PULSE)	I <sub>cp</sub> *1	-2.0	A
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 to +150	°C

\*1 : PW ≤ 10ms, Duty Cycle ≤ 50%

### ELECTRICAL CHARACTERISTICS(Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I <sub>CB0</sub>	V <sub>CB</sub> = -600V, I <sub>E</sub> =0			-10	μA
Emitter Cut-Off Current	I <sub>EB0</sub>	V <sub>EB</sub> = -7.0V, I <sub>c</sub> =0			-10	μA
DC Current Gain	h <sub>FE1</sub> *2	V <sub>CE</sub> = -5.0V, I <sub>c</sub> = -0.1A	30	58	120	
DC Current Gain	h <sub>FE2</sub> *2	V <sub>CE</sub> = -5.0V, I <sub>c</sub> = -0.5A	5	19		
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub> *2	I <sub>c</sub> = -0.3A, I <sub>B</sub> = -0.06A		-0.28	-0.5	V
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub> *2	I <sub>c</sub> = -0.3A, I <sub>B</sub> = -0.06A		-0.85	-1.2	V
Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>E</sub> =0.1A	10	28		MHz

UTC UNISONIC TECHNOLOGIES CO. LTD

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QW-R204-010,B

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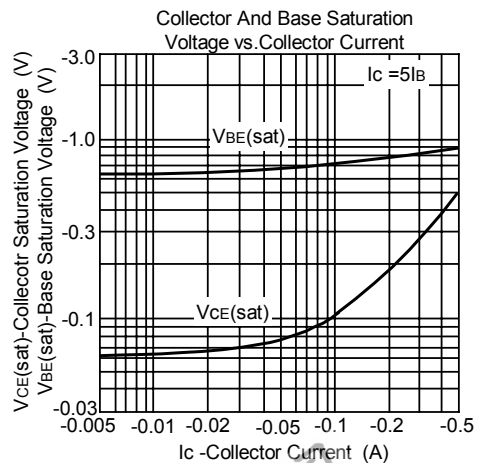
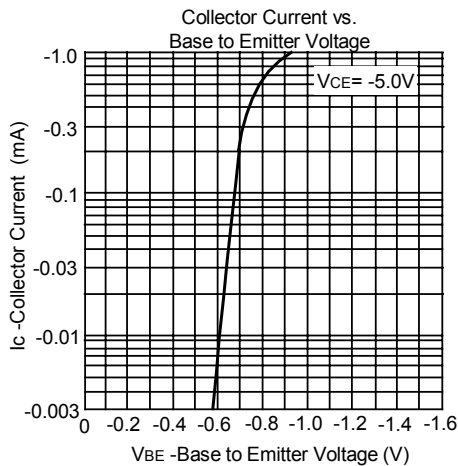
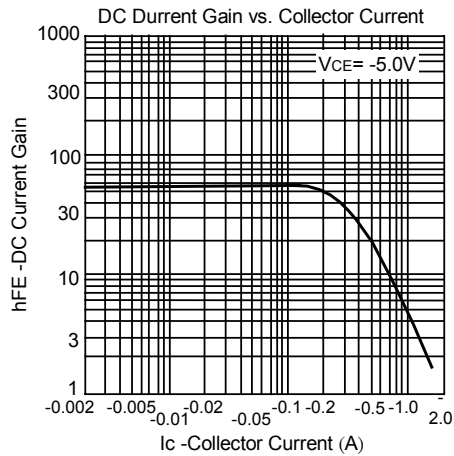
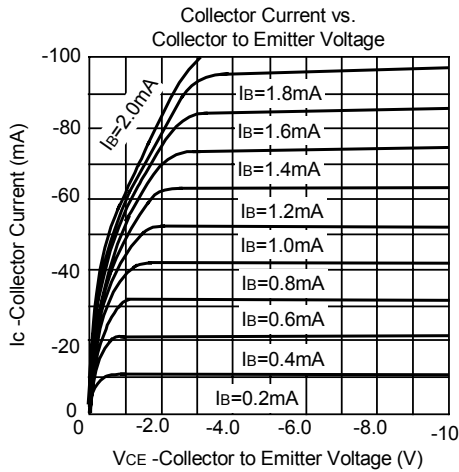
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Output Capacitance	Cob	V <sub>CB</sub> = -10V, I <sub>E</sub> =0, f=1.0MHz		42	50	pF
Turn-On Time	t <sub>on</sub>	I <sub>c</sub> = -0.5A, R <sub>L</sub> =500 Ω		0.1	0.5	μs
Storage Time	t <sub>stg</sub>	I <sub>B1</sub> = -I <sub>B2</sub> = -0.1A		3.5	5.0	μs
Fall Time	t <sub>f</sub>	V <sub>cc</sub> = -250V		0.08	0.5	μs

\*2 : Pulsed PW ≦ 350μs, Duty Cycle ≦ 2%

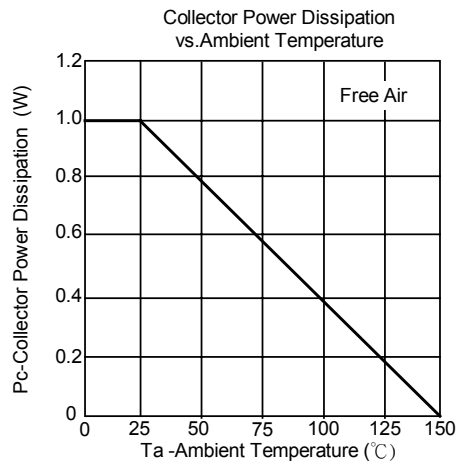
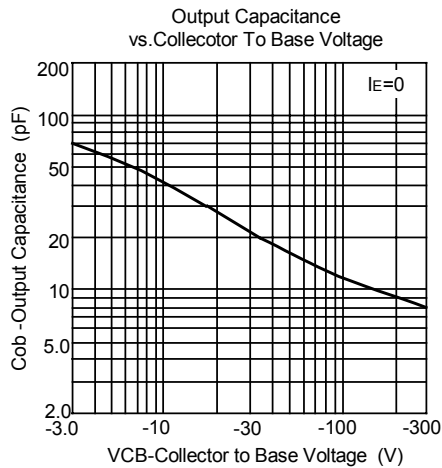
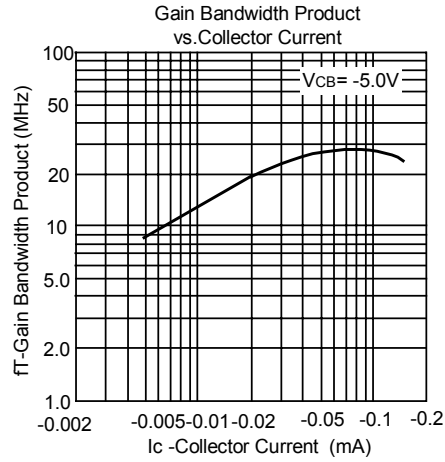
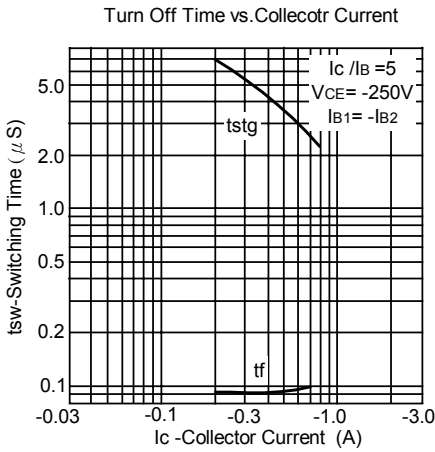
## CLASSIFICATION OF hFE1

RANK	M	L	K
RANGE	30-60	40-80	60-120

## TYPICAL CHARACTERISTICS



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