



2SA1627A

PNP SILICON TRANSISTOR

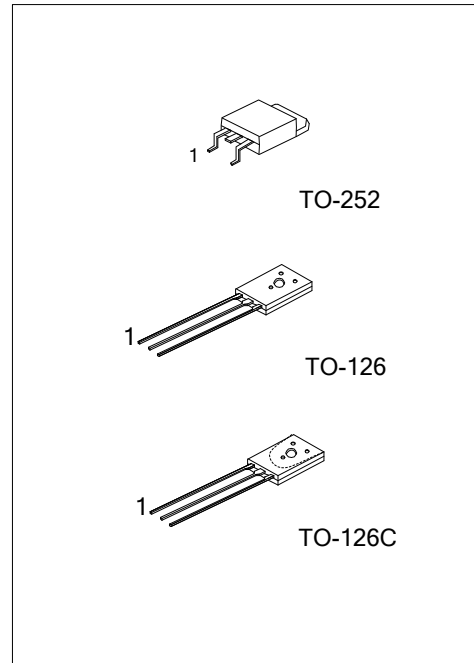
PNP EPITAXIAL SILICON TRANSISTOR

DESCRIPTION

The UTC **2SA1627A** is designed for general purpose amplifier and high speed switching applications.

FEATURES

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



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SA1627AL-x-T60-K	2SA1627AG-x-T60-K	TO-126	E	C	B	Bulk
2SA1627AL-x-T6C-K	2SA1627AG-x-T6C-K	TO-126C	E	C	B	Bulk
2SA1627AL-x-TN3-R	2SA1627AG-x-TN3-R	TO-252	B	C	E	Tape Reel
2SA1627AL-x-TN3-T	2SA1627AG-x-TN3-T	TO-252	B	C	E	Tube

<p>2SA1627AL-x-T6C-K</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Lead Free</p>	<p>(1) K: Bulk, R: Tape Reel, T: Tube (2) T6C: TO-126C, T60: TO-126, TN3: TO-252 (3) x: reference to Classification of h_{FE1} (4) Halogen Free, L: Lead Free</p>
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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}	-600	V
Collector-Emitter Voltage		V_{CEO}	-600	V
Emitter-Base Voltage		V_{EBO}	-7.0	V
Collector Power Dissipation	TO-126/TO-126C	P_C	1.0	W
	TO-252		1.9	
Collector Current (DC)		I_C	-1.0	A
Collector Current (Pulse) (Note 2)		I_{CP}	-2.0	A
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 $\leq 50\%$

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

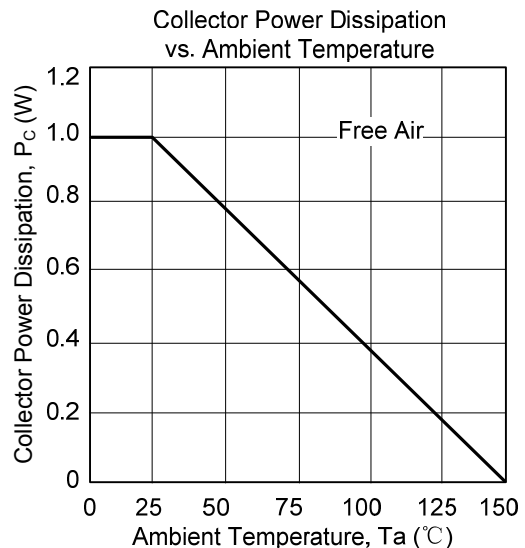
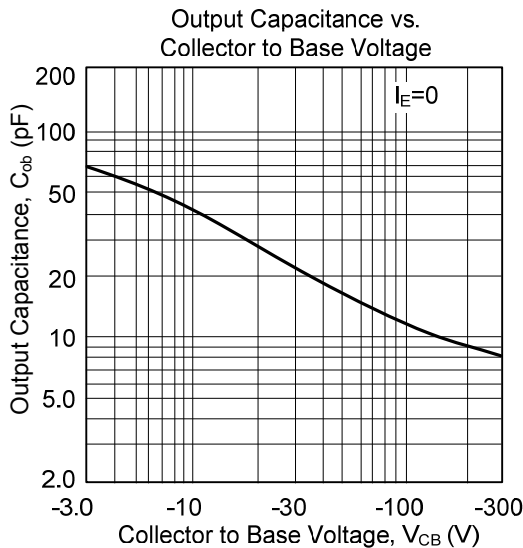
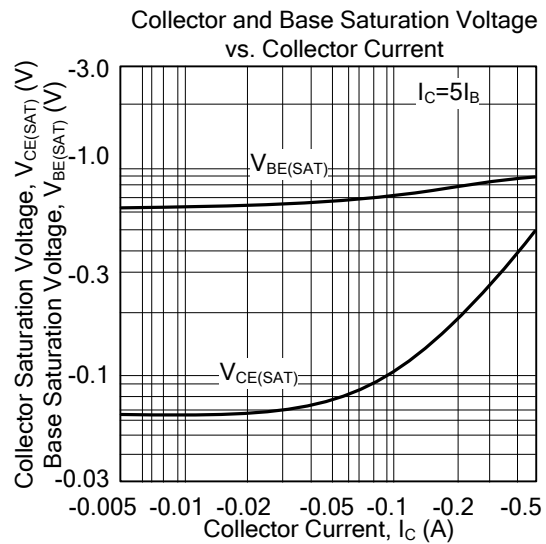
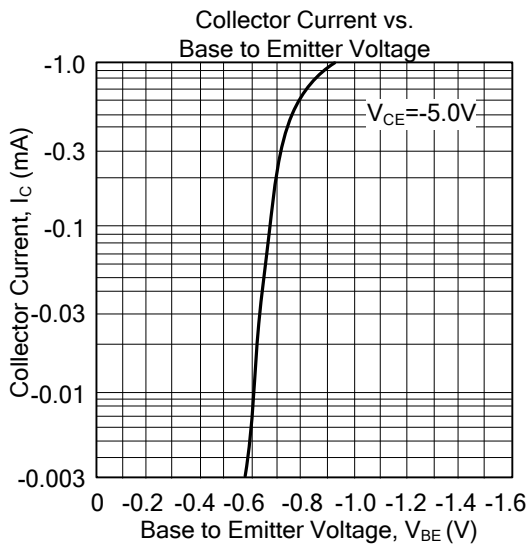
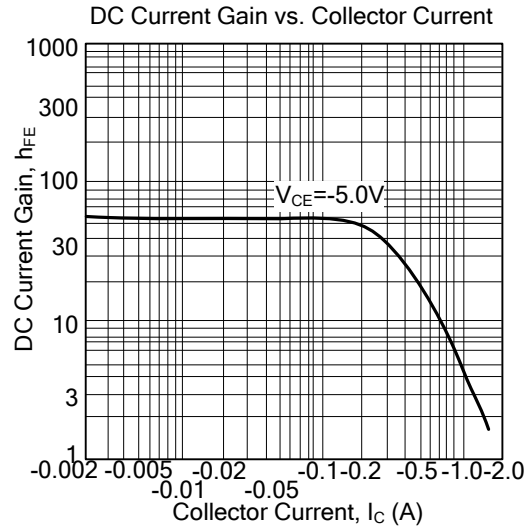
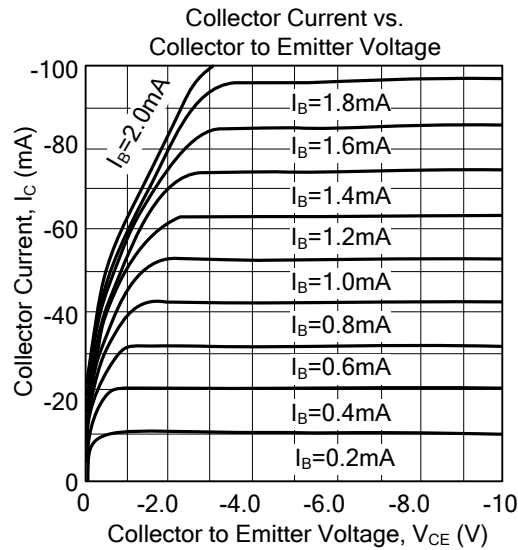
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -600\text{V}$, $I_E = 0$			-10	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -7.0\text{V}$, $I_C = 0$			-10	μA
DC Current Gain (Note 2)	h_{FE1}	$V_{CE} = -5.0\text{V}$, $I_C = -0.1\text{A}$	30	58	120	
	h_{FE2}	$V_{CE} = -5.0\text{V}$, $I_C = -0.5\text{A}$	4	19		
Collector-Emitter Saturation Voltage(Note)	$V_{CE(SAT)}$	$I_C = -0.3\text{A}$, $I_B = -0.06\text{A}$		-0.28	-1.5	V
Base-Emitter Saturation Voltage(Note)	$V_{BE(SAT)}$	$I_C = -0.3\text{A}$, $I_B = -0.06\text{A}$		-0.85	-1.2	V
Gain Bandwidth Product	f_T	$V_{CE} = -10\text{V}$, $I_E = 0.1\text{A}$	10	28		MHz
Output Capacitance	C_{OB}	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1.0\text{MHz}$		42	50	pF
Turn-On Time	t_{ON}	$I_C = -0.5\text{A}$, $R_L = 500\Omega$, $I_{B1} = -I_{B2} = -0.1\text{A}$, $V_{CC} = -250\text{V}$		0.1	0.5	μs
Storage Time	T_{SYG}			3.5	5.0	μs
Fall Time	t_F			0.08	0.5	μs

Note: Pulsed $PW \leq 350\mu\text{s}$, Duty Cycle $\leq 2\%$

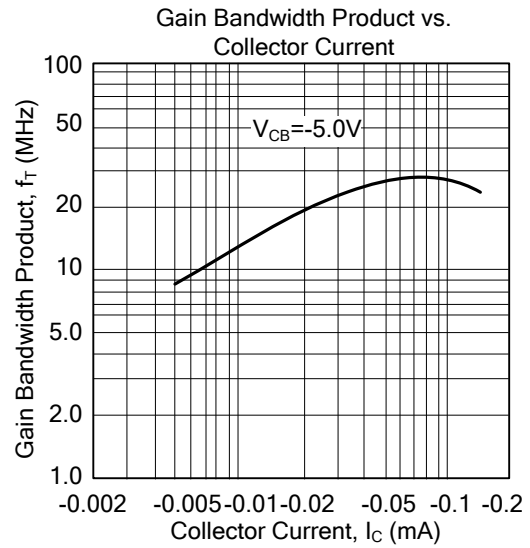
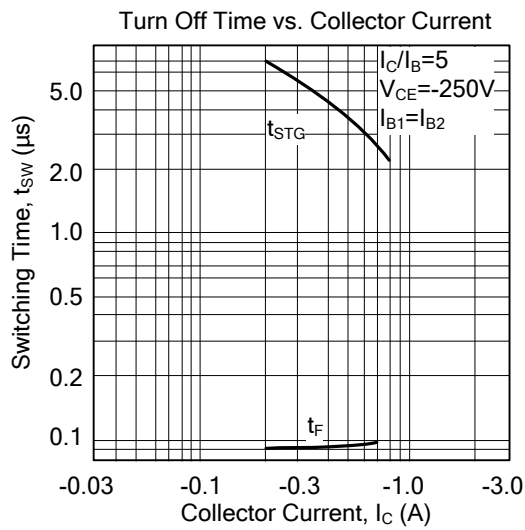
■ CLASSIFICATION OF h_{FE1}

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

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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