



2SA1627A

PNP SILICON TRANSISTOR

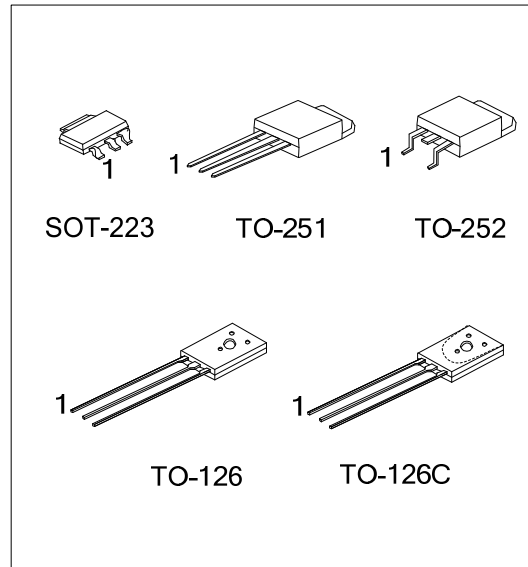
PNP EPITAXIAL SILICON TRANSISTOR

■ 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-AA3-R	2SA1627AG-x-AA3-R	SOT-223	B	C	E	Tape Reel
2SA1627AL-x-TM3-T	2SA1627AG-x-TM3-T	TO-251	B	C	E	Tube
2SA1627AL-x-TN3-R	2SA1627AG-x-TN3-R	TO-252	B	C	E	Tape Reel
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

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

<p>2SA1627AG-x-T6C-K</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Green Package</p>	<p>(1) K: Bulk, R: Tape Reel, T: Tube (2) AA3: SOT-223, TM3: TO-251, TN3: TO-252 T6C: TO-126C, T60: TO-126 (3) x: reference to Classification of h_{FE1} (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

PACKAGE	MARKING
SOT-223	<p>2SA1627A□ □□□□ → L: Lead Free → G: Halogen Free → Date Code</p>
TO-251 / TO-252	<p>UTC 2SA1627A□ □□□□□□ → L: Lead Free → G: Halogen Free → Date Code Lot Code ←</p>
TO-126 / TO-126C	<p>UTC□□□□ 2SA1627A□ → Date Code → L: Lead Free → G: Halogen Free</p>

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PNP SILICON TRANSISTOR

■ 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	SOT-223	P_C	0.8	W
	TO-251/TO-252		1.9	W
	TO-126/TO-126C		1.0	W
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. $P_W \leq 10\text{ms}$, Duty Cycle $\leq 50\%$

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

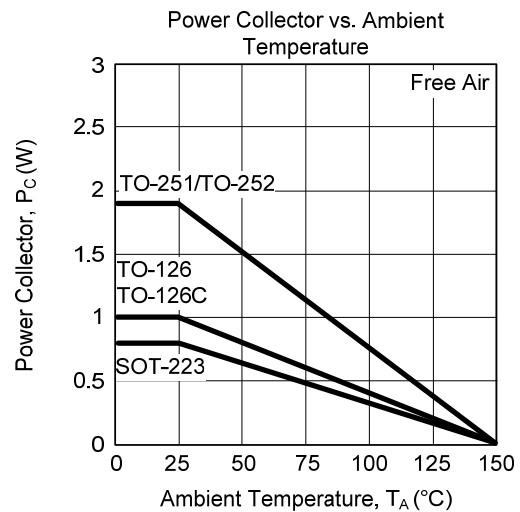
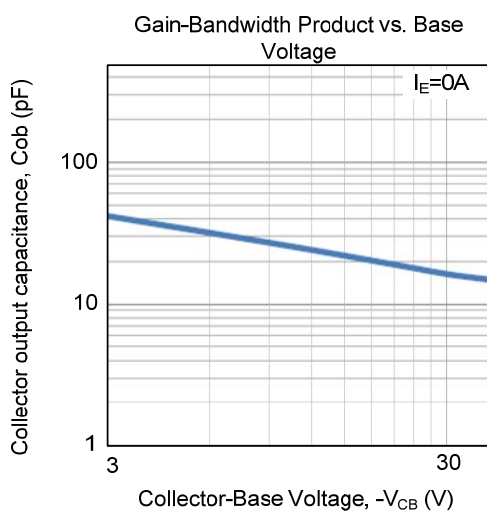
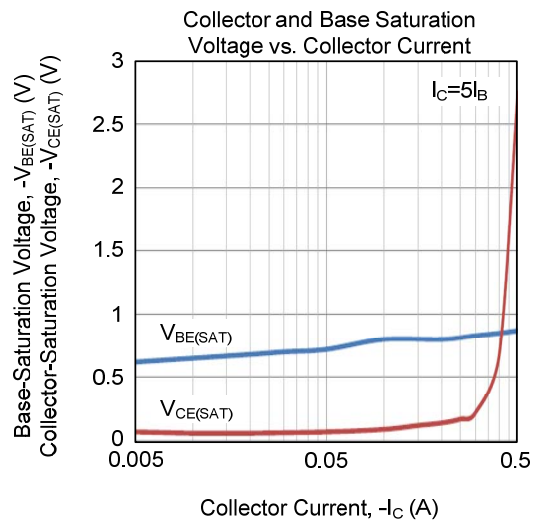
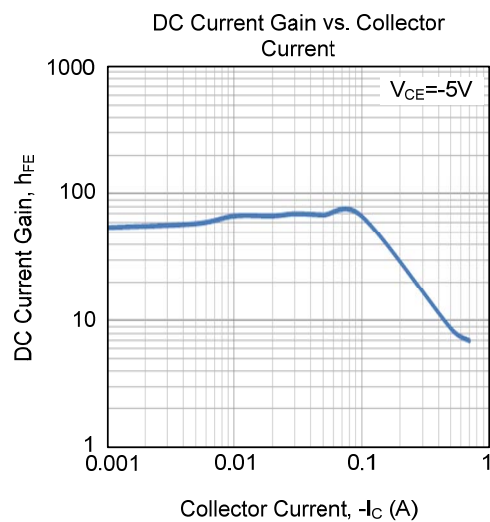
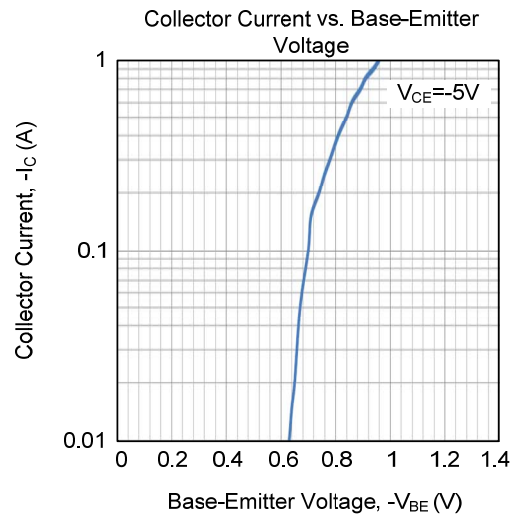
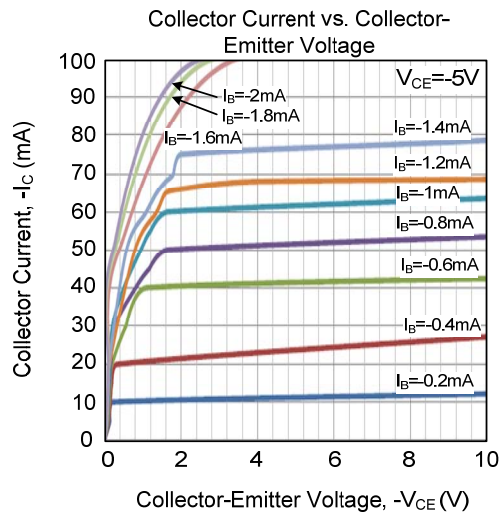
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -600\text{V}$, $I_E = 0$			-10	μA	
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -7.0\text{V}$, $I_C = 0$			-10	μA	
DC Current Gain (Note 2)	h_{FE1}	$V_{CE} = -5.0\text{V}$, $I_C = -0.1\text{A}$	30		120		
	h_{FE2}	$V_{CE} = -5.0\text{V}$, $I_C = -0.5\text{A}$	4				
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 $P_W \leq 350\mu\text{s}$, Duty Cycle $\leq 2\%$

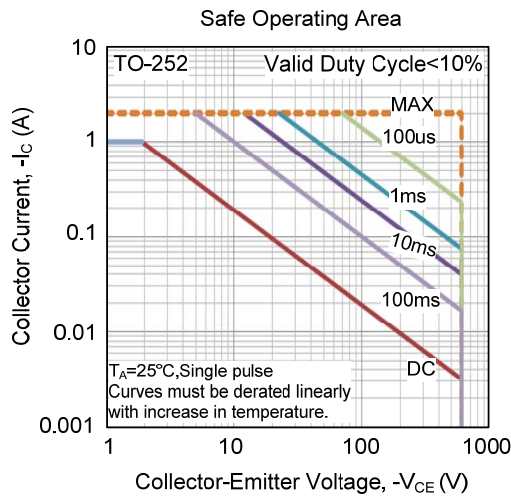
■ CLASSIFICATION OF h_{FE1}

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

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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