



# 2SA1627A

## PNP SILICON TRANSISTOR

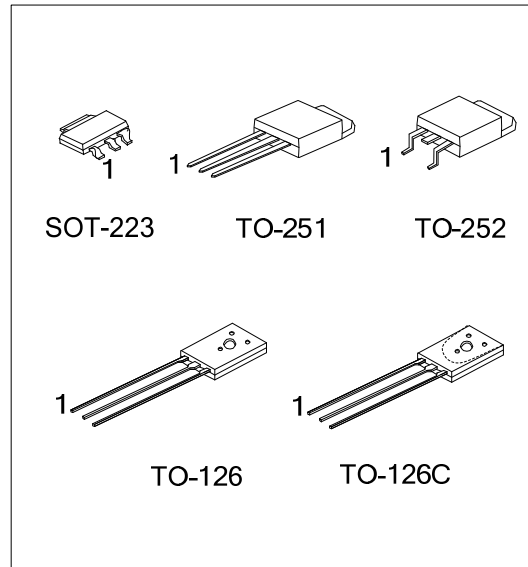
### PNP EPITAXIAL SILICON TRANSISTOR

■ 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	
-	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>2SA1627AL-x-T6C-K</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Rank</li> <li>(4) Green Package</li> </ul>	<ul style="list-style-type: none"> <li>(1) K: Bulk, R: Tape Reel, T: Tube</li> <li>(2) AA3: SOT-223, TM3: TO-251, TN3: TO-252 T6C: TO-126C, T60: TO-126</li> <li>(3) x: reference to Classification of <math>h_{FE1}</math></li> <li>(4) L: Lead Free, G: Halogen Free and Lead Free</li> </ul>
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■ MARKING

SOT-223	TO-251 / TO-252	TO-126 / TO-126C
<p>2SA1627AG □□□□ → Data Code 1</p>	<p>UTC 2SA1627A □ □□□□□□ → Data Code Lot Code ← □□□□□□ → Data Code 1</p> <p>L: Lead Free G: Halogen Free</p>	<p>UTC □□□□ 2SA1627A □ → Data Code L: Lead Free G: Halogen Free 1</p>

■ 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	
	TO-126/TO-126C		1.0	
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)

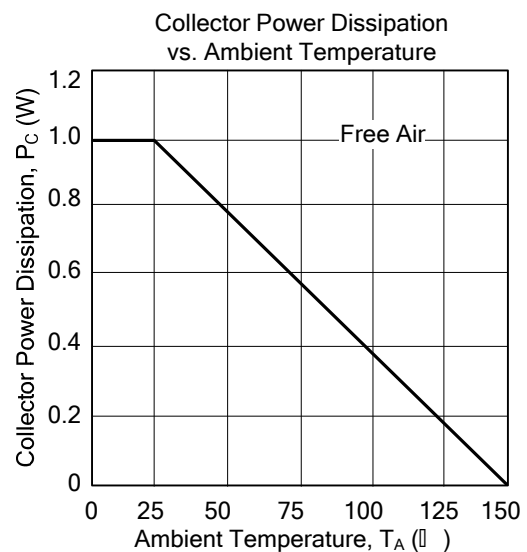
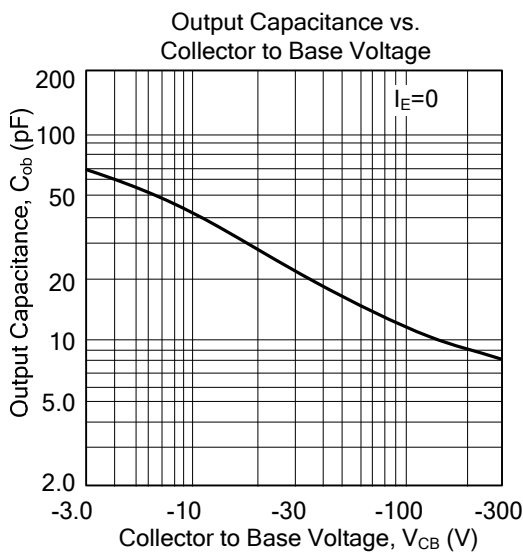
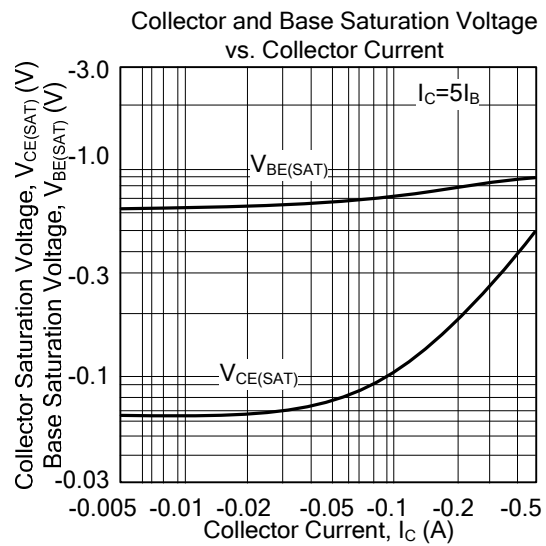
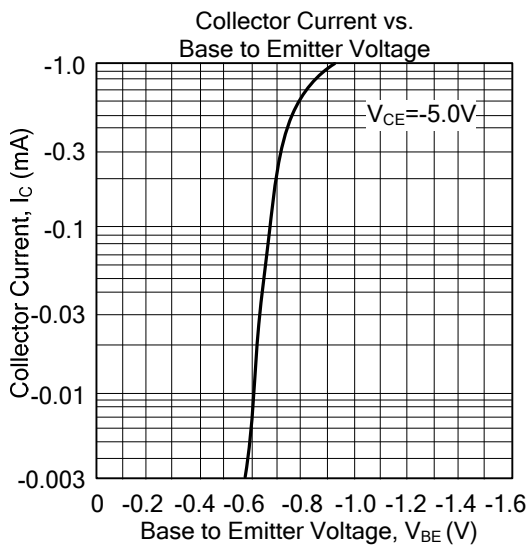
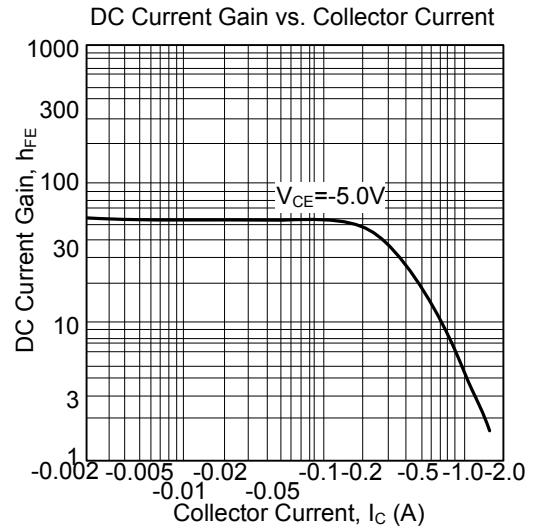
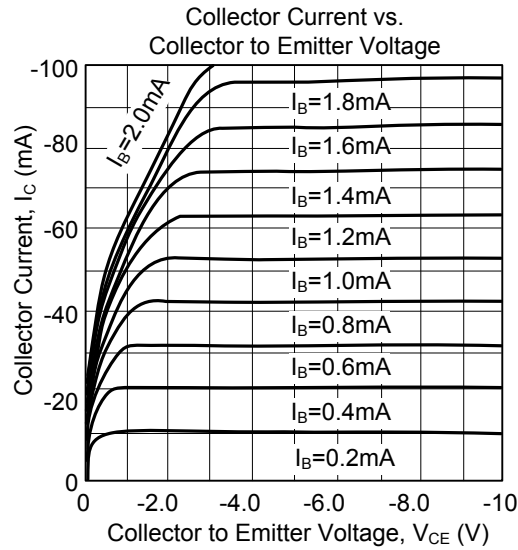
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = -600\text{V}$ , $I_E = 0$			-10	$\mu\text{A}$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = -7.0\text{V}$ , $I_C = 0$			-10	$\mu\text{A}$
DC Current Gain (Note 2)	$h_{FE1}$	$V_{CE} = -5.0\text{V}$ , $I_C = -0.1\text{A}$	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	$\mu\text{s}$
Storage Time	$T_{SYG}$			3.5	5.0	$\mu\text{s}$
Fall Time	$t_F$				0.08	0.5

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

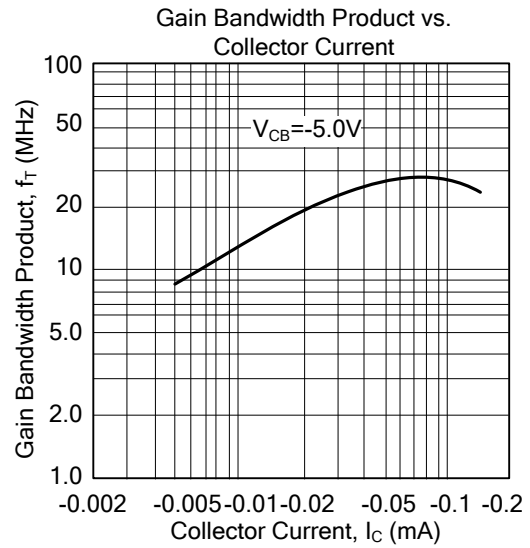
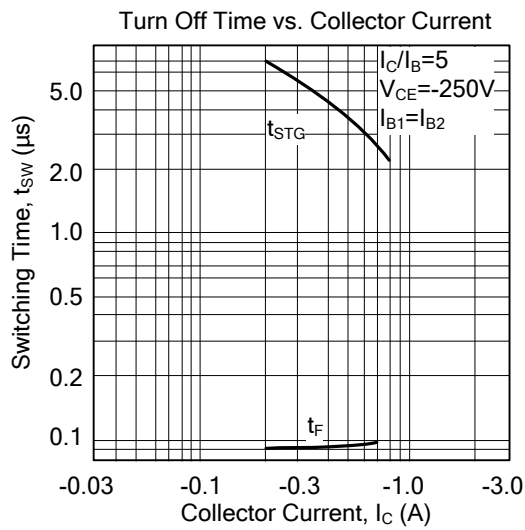
■ CLASSIFICATION OF  $h_{FE1}$

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

## TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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