



2SA1627

PNP SILICON TRANSISTOR

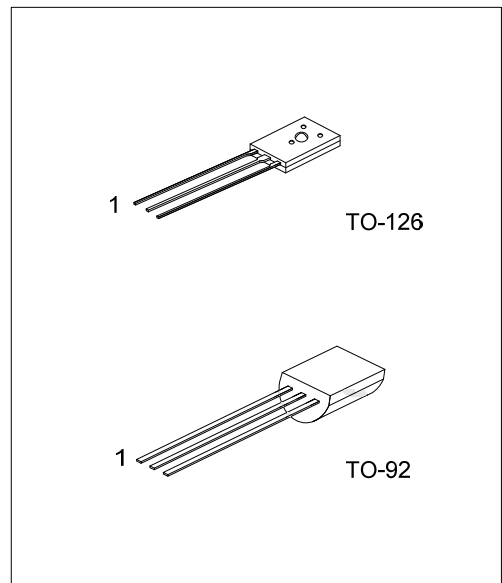
PNP EPITAXIAL SILICON TRANSISTOR

■ 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



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SA1627L-T60-K	2SA1627G-T60-K	TO-126	E	C	B	Bulk
2SA1627L-T92-B	2SA1627G-T92-B	TO-92	E	C	B	Tape Box
2SA1627L-T92-K	2SA1627G-T92-K	TO-92	E	C	B	Bulk

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

<p>2SA1627G-T60-K</p>	<p>(1) K: Bulk, B: Tape Box (2) T60: TO-126, T92: TO-92 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

TO-126	TO-92

■ ABSOLUTE MAXIMUM RATING ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CB0}	-600	V
Collector-emitter voltage	V_{CEO}	-600	V
Emitter-Base Voltage	V_{EBO}	-7.0	V
Collector Current	I_C	-1.0	A
Collector Current (Peak)	I_{CP}	-2.0 (Note 1)	A
Collector Dissipation	TO-126	P_C	1
	TO-92		0.6
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)

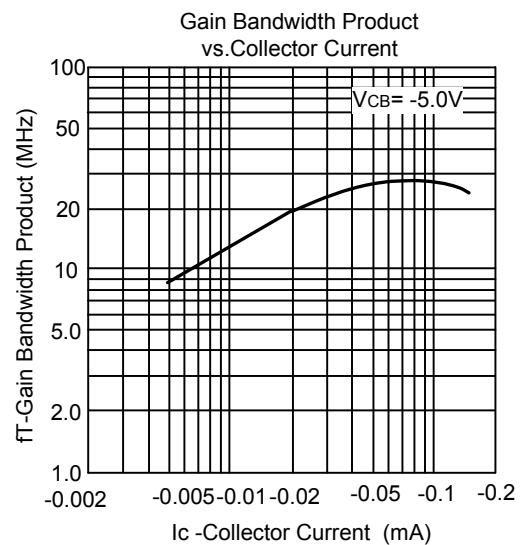
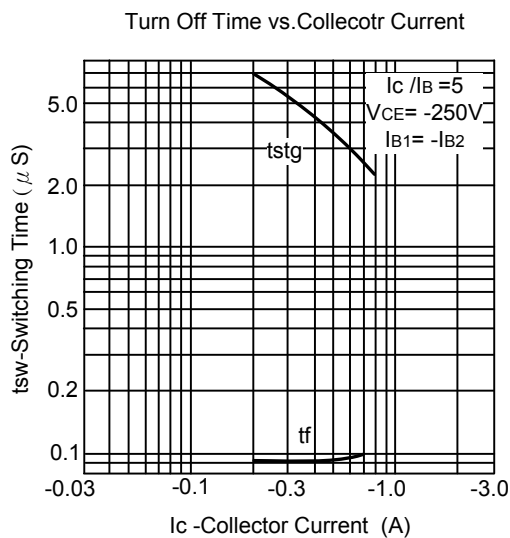
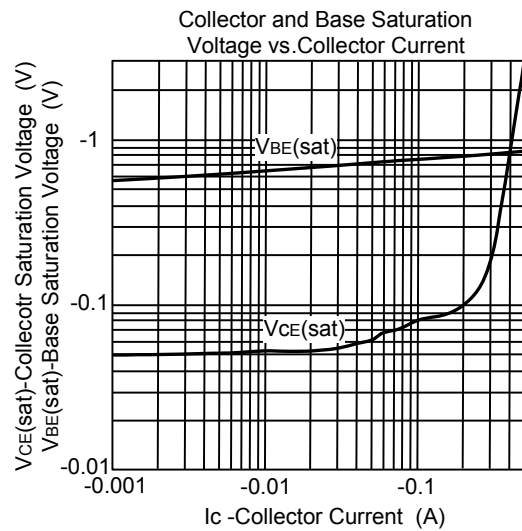
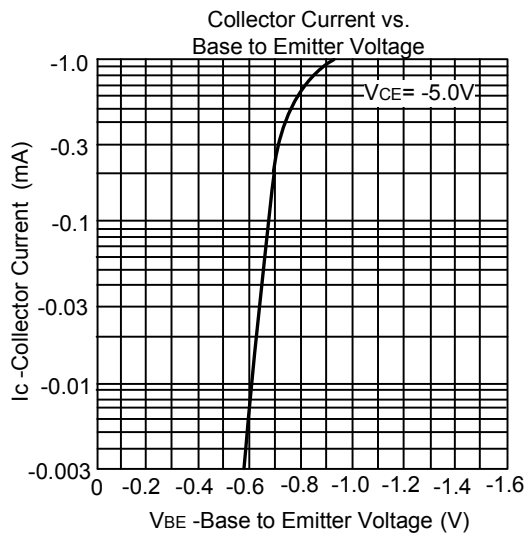
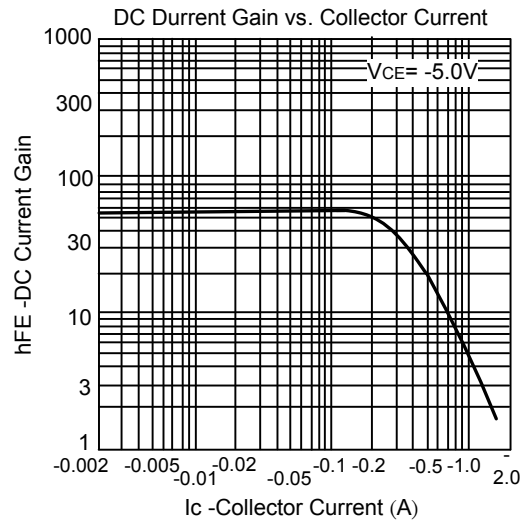
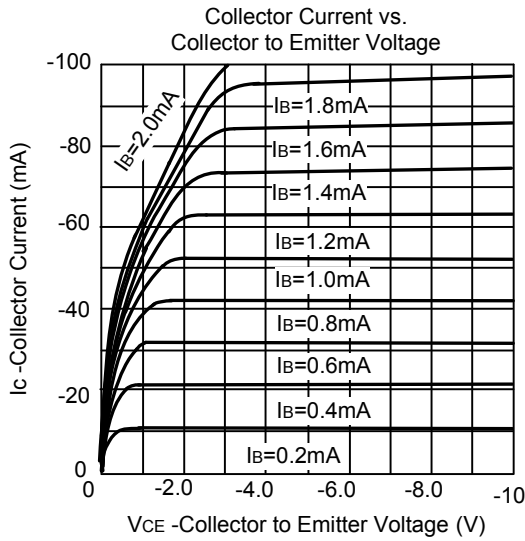
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -600\text{V}$, $I_E = 0$			-10	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -7.0\text{V}$, $I_C = 0$			-10	μA
DC Current Gain (Note)	h_{FE1}	$V_{CE} = -5.0\text{V}$, $I_C = -0.1\text{A}$	30	58	120	
	h_{FE2}	$V_{CE} = -5.0\text{V}$, $I_C = -0.5\text{A}$	5	19		
Collector-Emitter Saturation Voltage (Note)	$V_{CE(sat)}$	$I_C = -0.3\text{A}$, $I_B = -0.06\text{A}$		-0.28	-0.5	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_{STG}			3.5	5.0	μs
Fall Time	t_f			0.08	0.5	μs

Note: Pulse test: Pulse width=300 μs , Duty Cycle $\leq 2\%$

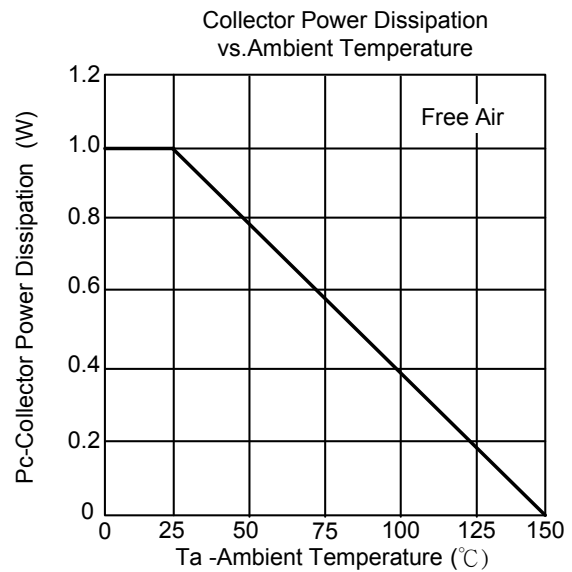
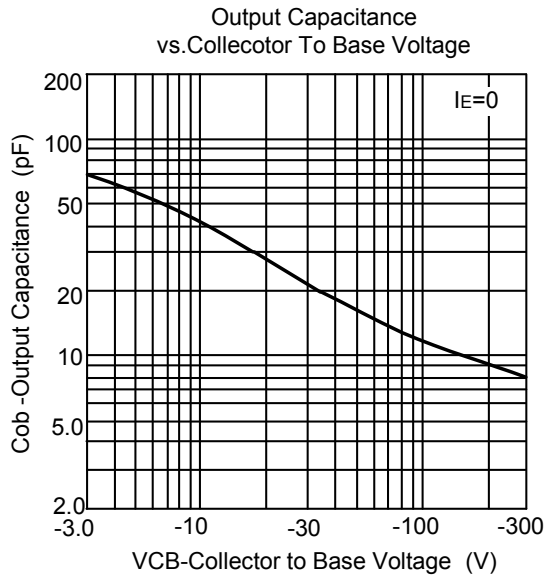
■ CLASSIFICATION OF h_{FE1}

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

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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