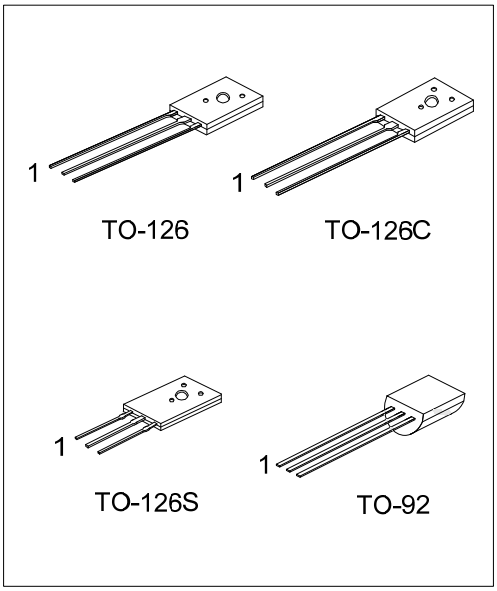
2SA1627

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-T6C-K	2SA1627G-T6C-K	TO-126C	E	C	B	Bulk
2SA1627L-T6S-K	2SA1627G-T6S-K	TO-126S	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

2SA1627G-T60-K (1)Packing Type (2)Package Type (3)Green Package	(1) K: Bulk, B: Tape Box (2) T60: TO-126, T6C:TO-126C, T6S: TO-126S T92: TO-92 (3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING

TO-126 / TO-126C / TO-126S	TO-92
UTC □□□□ → Date Code 2SA1627□ → L: Lead Free G: Halogen Free 1	UTC 2SA1627□ → L: Lead Free G: Halogen Free □□□ → Date Code 1

■ ABSOLUTE MAXIMUM RATING (T_A=25°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 Current		I_C	-1.0	A
Collector Current (Peak)		I_{CP}	-2.0 (Note 1)	A
Collector Dissipation	TO-126 TO-126C TO-126S	P_C	1	W
	TO-92		0.6	W
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°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. $P_W \leqq 10$ms, Duty Cycle $\leqq 50\%$.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I_{CBO}	V_{CB}= -600V, I_E=0			-10	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}= -7.0V, I_C=0			-10	μA
DC Current Gain (Note)	h_{FE1}	V_{CE}= -5.0V, I_C= -0.1A	30	58	120	
	h_{FE2}	V_{CE}= -5.0V, I_C= -0.5A	3	19		
Collector-Emitter Saturation Voltage (Note)	$V_{CE(sat)}$	I_C= -0.3A, I_B= -0.06A		-0.28	-0.5	V
Base-Emitter Saturation Voltage (Note)	$V_{BE(sat)}$	I_C= -0.3A, I_B= -0.06A		-0.85	-1.2	V
Gain Bandwidth Product	f_T	V_{CE}= -10V, I_E=0.1A	10	28		MHz
Output Capacitance	Cob	V_{CB}= -10V, I_E=0, f=1.0MHz		42	50	pF
Turn-On Time	t_{on}	I_C =-0.5A, R_L=500Ω I_{B1}= -I_{B2}= -0.1A, V_{CC} =-250V		0.1	0.5	μs
Storage Time	T_{STG}			3.5	5.0	μs
Fall Time	t_f			0.08	0.5	μs

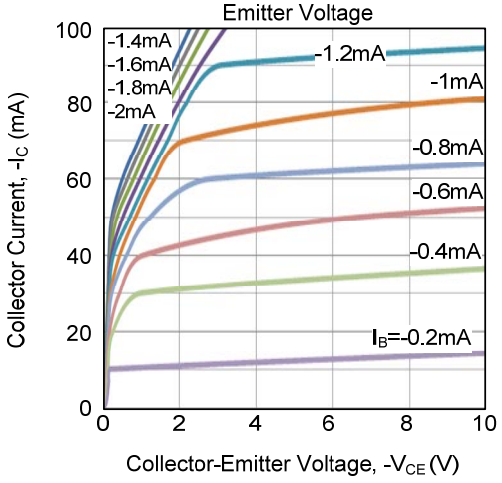
Note: Pulse test: Pulse width=300μs, Duty Cycle $\leqq 2\%$

■ CLASSIFICATION OF h_{FE1}

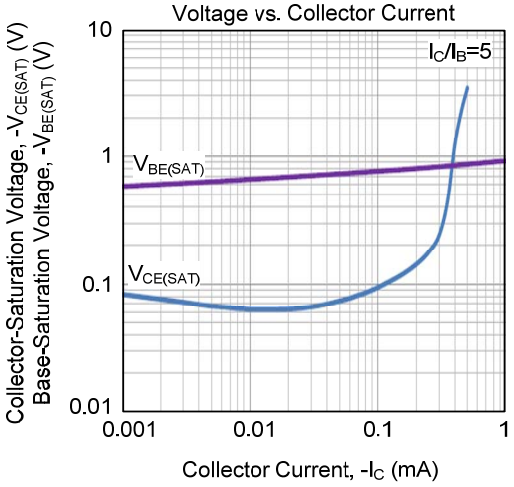
RANK	M	L	K
RANGE	30 ~ 60	40 ~ 80	60 ~ 120

■ TYPICAL CHARACTERISTICS

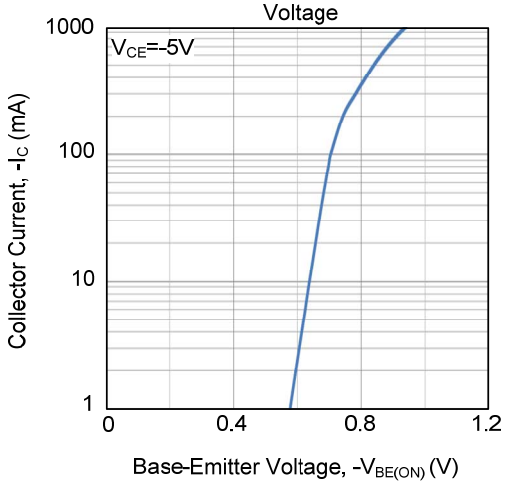
Collector Current vs. Collector-Emitter Voltage



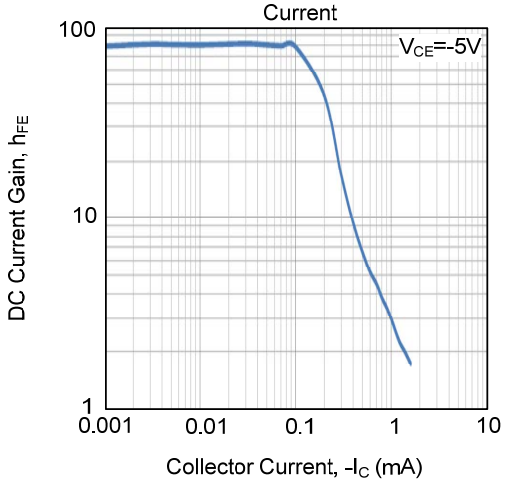
Collector and Base Saturation Voltage vs. Collector Current



Collector-Current vs. Base-Emitter Voltage



DC Current Gain vs. Collector Current



Power Dissipation vs. Junction Temperature