



2SA1627A

PNP SILICON TRANSISTOR

PNP EPITAXIAL SILICON TRANSISTOR

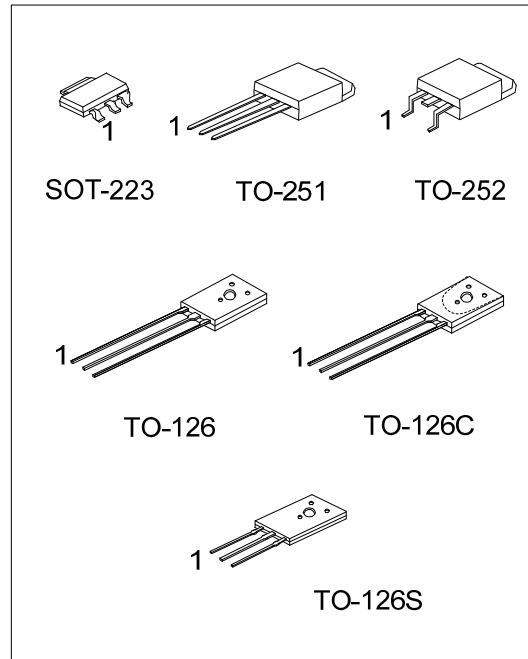
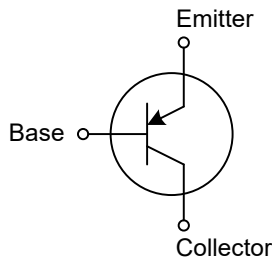
DESCRIPTION

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

FEATURES

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

SYMBOL



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
2SA1627AL-x-T6S-K	2SA1627AG-x-T6S-K	TO-126S	B	C	E	Bulk

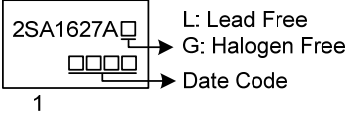
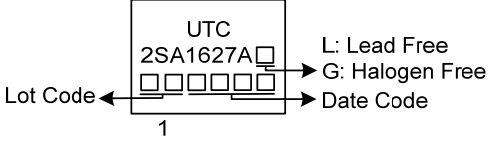
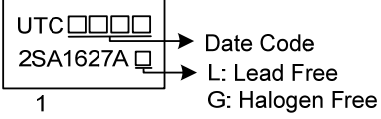
Note: Pin Assignment: B: Base E: Emitter C: Collector

<p>2SA1627AG-x-T6C-K</p>	<p>(1) K: Bulk, R: Tape Reel, T: Tube (2) AA3: SOT-223, TM3: TO-251, TN3: TO-252 T60: TO-126, T6C: TO-126C, T6S: TO-126S (3) x: reference to Classification of h_{FE1} (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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2SA1627A

PNP SILICON TRANSISTOR

MARKING

PACKAGE	MARKING
SOT-223	
TO-251 / TO-252	
TO-126 TO-126C TO-126S	

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°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 Power Dissipation (T _C =25°C)	SOT-223	P _C	3	W
	TO-251/TO-252		25	W
	TO-126/TO-126C		15	W
	TO-126S			
Collector Current (DC)		I _C	-1.0	A
Collector Current (Pulse) (Note 2)		I _{CP}	-2.0	A
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 ≦ 10ms, Duty Cycle ≦ 50%

■ THERMAL DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	SOT-223	θ _{JA}	156	°C/W
	TO-251/TO-252		80	°C/W
	TO-126/TO-126C		125	°C/W
	TO-126S			
Junction to Case	SOT-223	θ _{JC}	41.6	°C/W
	TO-251/TO-252		5	°C/W
	TO-126/TO-126C		8.3	°C/W
	TO-126S			

Note: Device mounted on FR-4 substrate PC board, 2oz copper, with 1inch square copper plate.

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

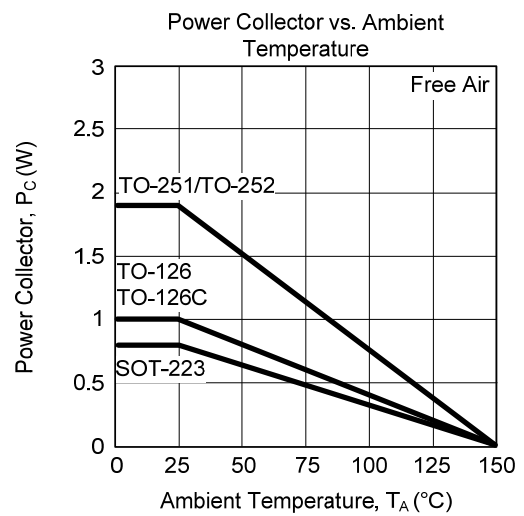
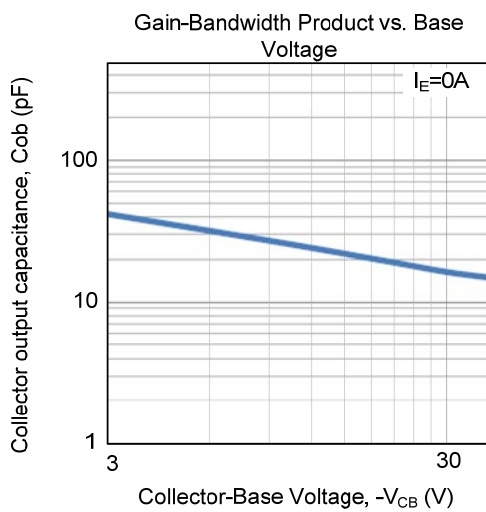
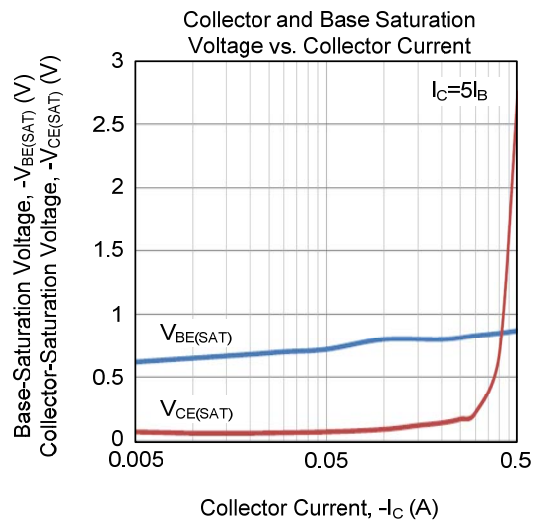
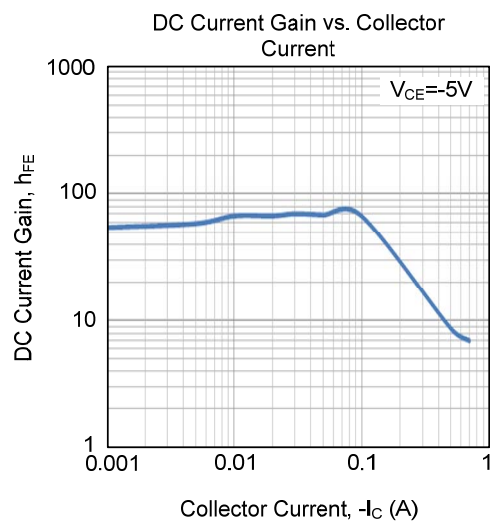
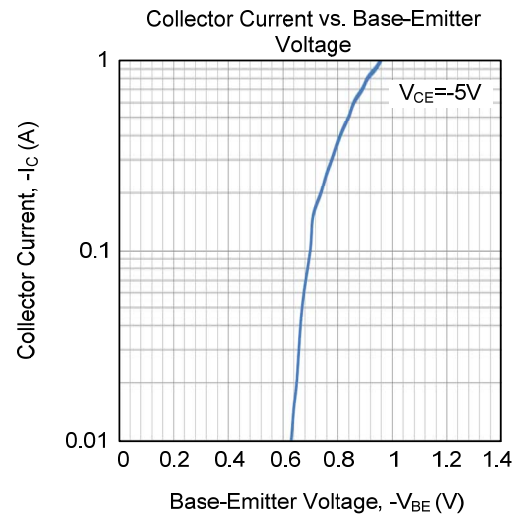
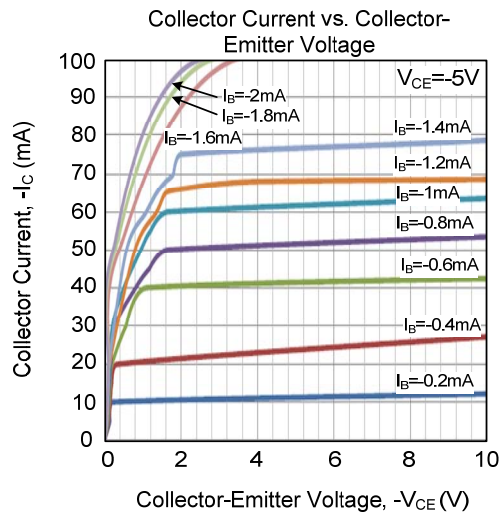
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Collector Cut-Off Current	I _{CB0}	V _{CB} = -600V, I _E =0			-10	μA	
Emitter Cut-Off Current	I _{EBO}	V _{EB} = -7.0V, I _C =0			-10	μA	
DC Current Gain (Note 2)	h _{FE1}	V _{CE} = -5.0V, I _C = -0.1A	30		120		
	h _{FE2}	V _{CE} = -5.0V, I _C = -0.5A	4				
Collector-Emitter Saturation Voltage(Note)	V _{CE(SAT)}	I _C = -0.3A, I _B = -0.06A		-0.28	-1.5	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	C _{OB}	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 _{SYG}				3.5	5.0	μs
Fall Time	t _F				0.08	0.5	μs

Note: Pulsed P_W ≦ 350μs, Duty Cycle ≦ 2%.

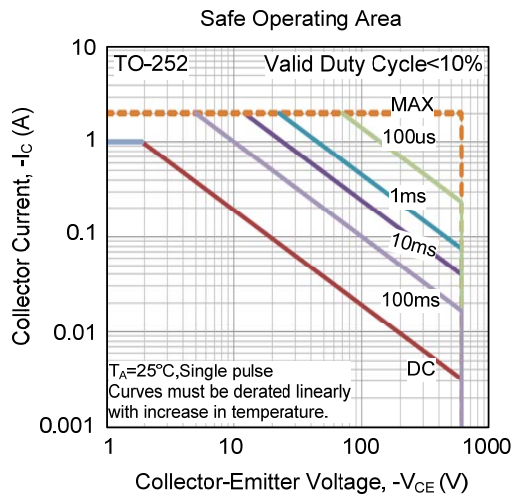
■ CLASSIFICATION OF h_{FE1}

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

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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