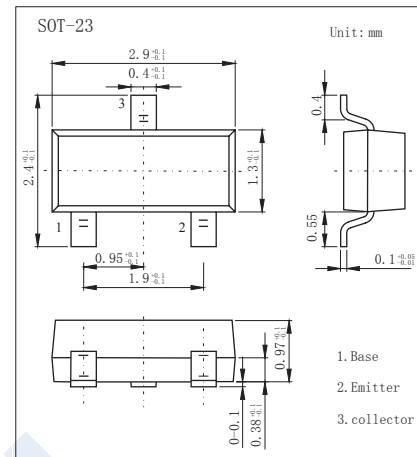


## PNP Transistors

### 2SA1607

#### ■ Features

- Fast switching speed.
- High gain-bandwidth product.
- Low saturation voltage.
- Complementary to 2SC4168



#### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	-40	V
Collector-emitter voltage	V <sub>CEO</sub>	-20	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current	I <sub>C</sub>	-150	mA
Collector current (pulse)	I <sub>CP</sub>	-300	mA
Base current	I <sub>B</sub>	-30	mA
Collector dissipation	P <sub>C</sub>	200	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

#### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> = -100 μA, I <sub>E</sub> =0	-40			V
Collector- emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = -1 mA, R <sub>BE</sub> =∞	-20			
Emitter - base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = -100 μA, I <sub>C</sub> =0	-5			
Collector-base cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = -30 V, I <sub>E</sub> =0			-100	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -4V, I <sub>C</sub> =0			-100	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-10 mA, I <sub>B</sub> =- 1mA		-0.07	-0.2	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =-10 mA, I <sub>B</sub> =- 1mA		-0.75	-1	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = -1V, I <sub>C</sub> = -10mA	60		180	
Delay time	t <sub>d</sub>	See specified Test Circuit		14	20	ns
Rise time	t <sub>r</sub>			11	20	
Storage time	t <sub>s</sub>			80	180	
Fall time	t <sub>f</sub>			16	25	
Output capacitance	C <sub>ob</sub>	V <sub>CE</sub> = -10V, f=100MHz		2.9		pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -1mA		400		MHz

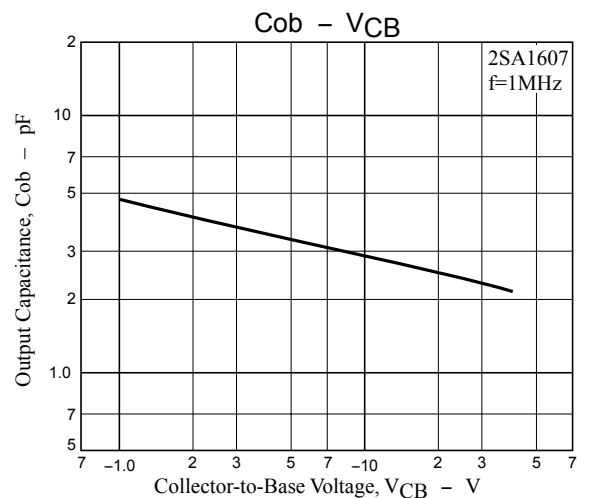
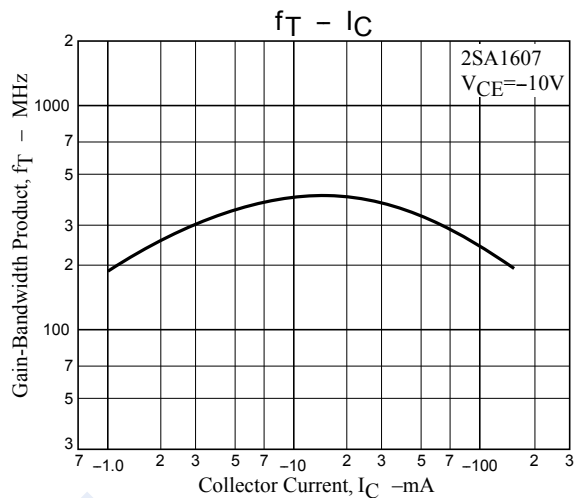
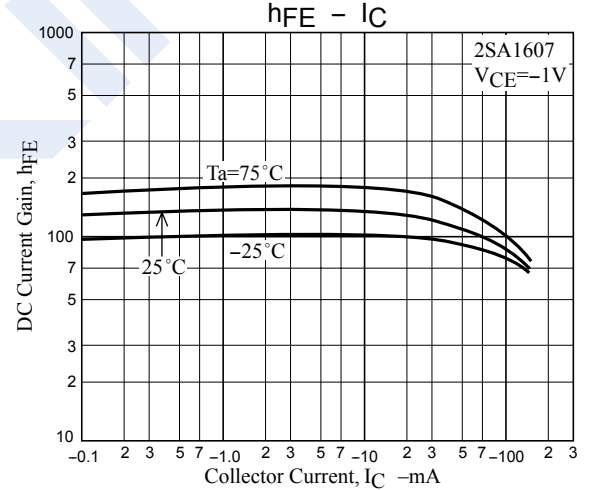
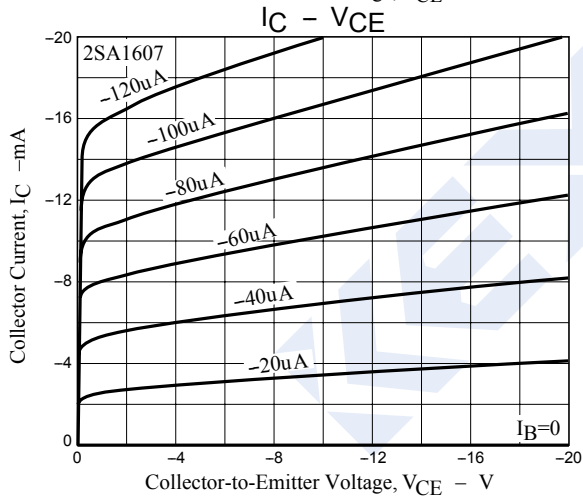
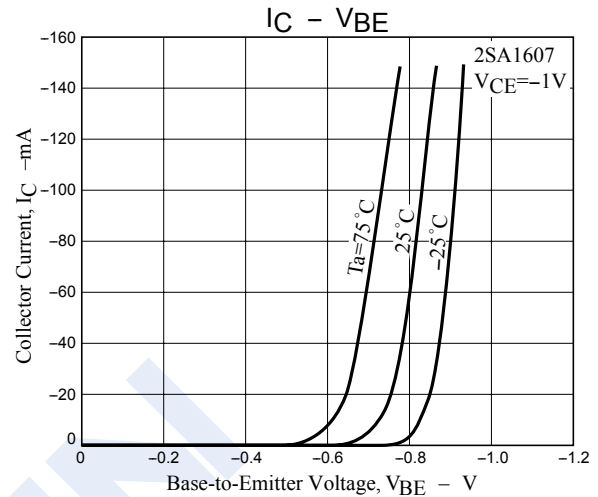
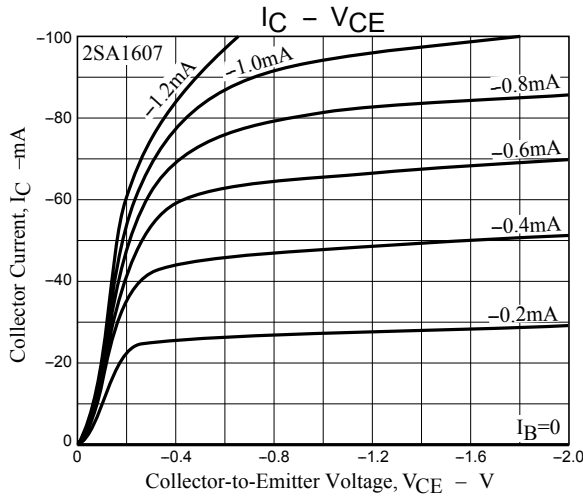
#### ■ Classification of h<sub>FE</sub>

Type	2SA1607-YL3	2SA1607-YL4
Range	60-120	90-180
Marking	YL3	YL4

### PNP Transistors

### 2SA1607

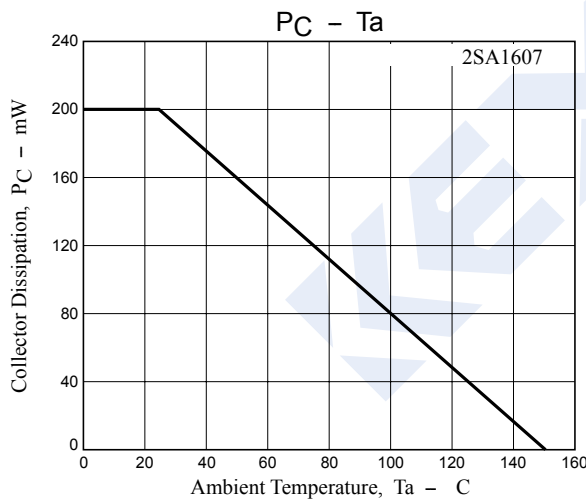
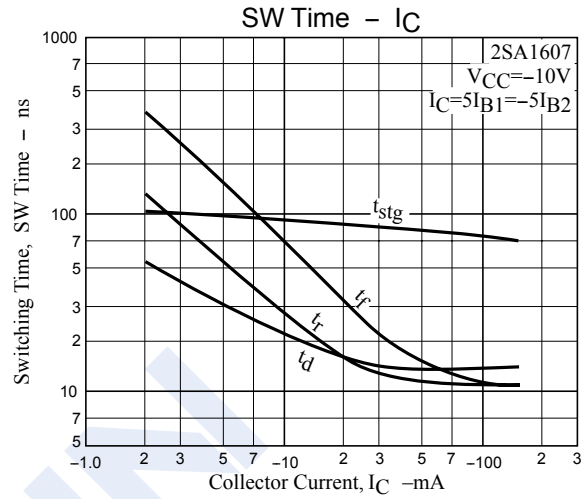
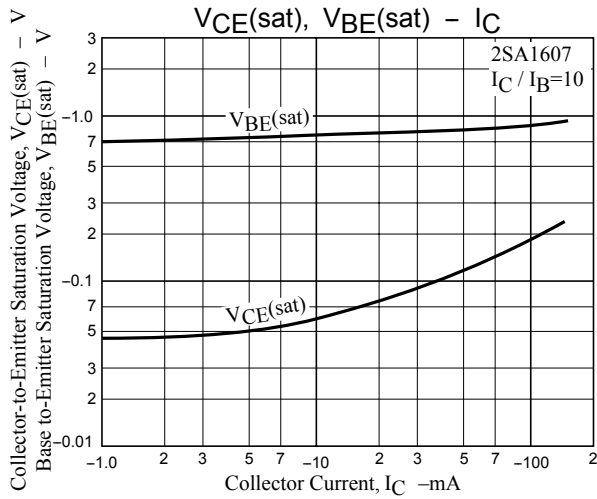
■ Typical Characteristics



## PNP Transistors

### 2SA1607

#### Typical Characteristics



#### Switching Time Test Circuit

