

PNP Transistors

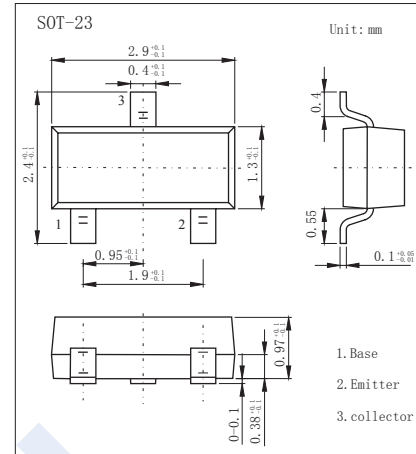
2SA1607

■ 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 _{CB0}	-40	V
Collector-emitter voltage	V _{CE0}	-20	V
Emitter-base voltage	V _{EB0}	-5	V
Collector current	I _C	-150	mA
Collector current (pulse)	I _{CP}	-300	mA
Base current	I _B	-30	mA
Collector dissipation	P _C	200	mW
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C



■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _C = -100 μA, I _E =0	-40			V
Collector- emitter breakdown voltage	V _{CE0}	I _C = -1 mA, R _{BE} =∞	-20			
Emitter - base breakdown voltage	V _{EB0}	I _E = -100 μA, I _C =0	-5			
Collector-base cut-off current	I _{CB0}	V _{CB} = -30 V, I _E =0			-100	nA
Emitter cut-off current	I _{EB0}	V _{EB} = -4V, I _C =0			-100	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-10 mA, I _B =- 1mA		-0.07	-0.2	V
Base - emitter saturation voltage	V _{BE(sat)}	I _C =-10 mA, I _B =- 1mA		-0.75	-1	
DC current gain	h _{FE}	V _{CE} = -1V, I _C = -10mA	60		180	
Delay time	t _d	See specified Test Circuit		14	20	ns
Rise time	t _r			11	20	
Storage time	t _s			80	180	
Fall time	t _f			16	25	
Output capacitance	C _{ob}	V _{CE} = -10V, f=100MHz		2.9		pF
Transition frequency	f _T	V _{CE} = -10V, I _C = -1mA		400		MHz

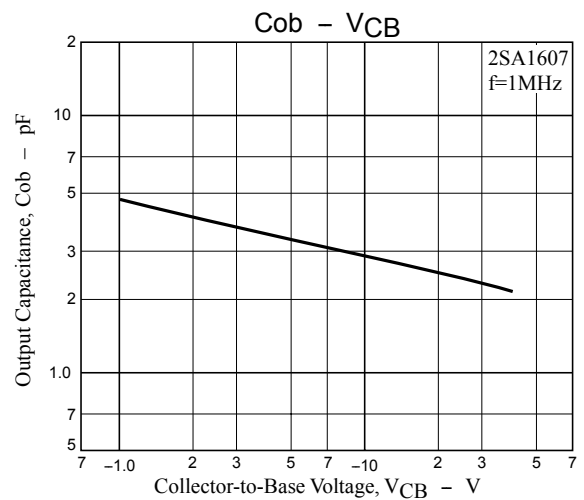
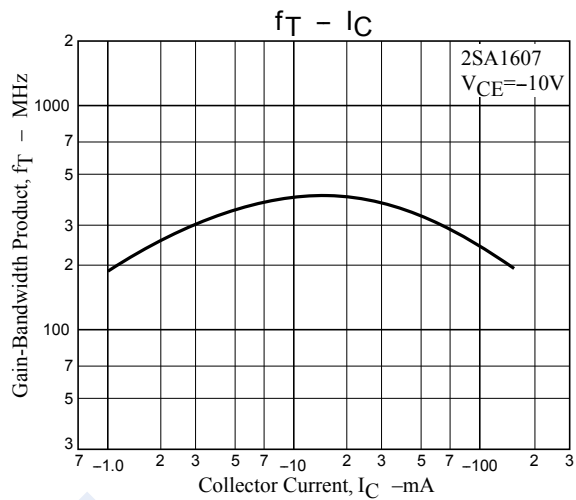
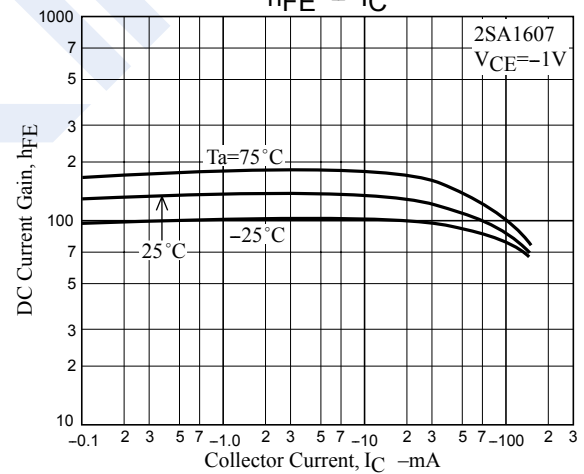
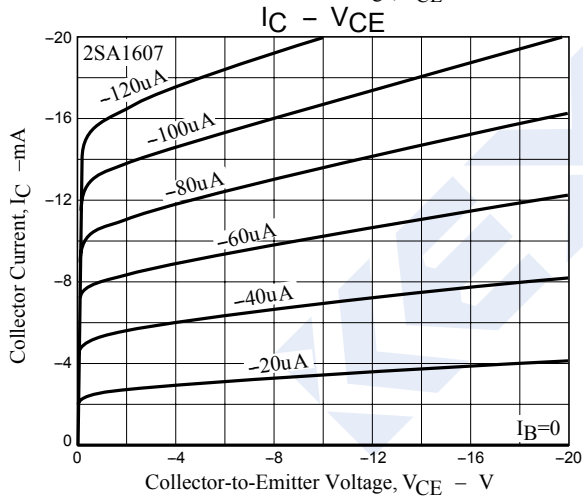
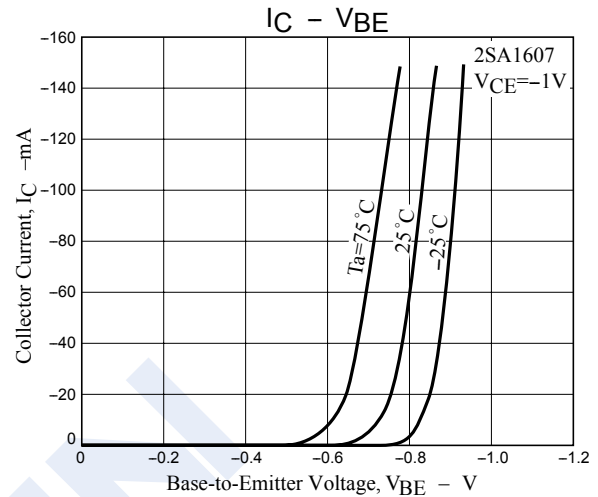
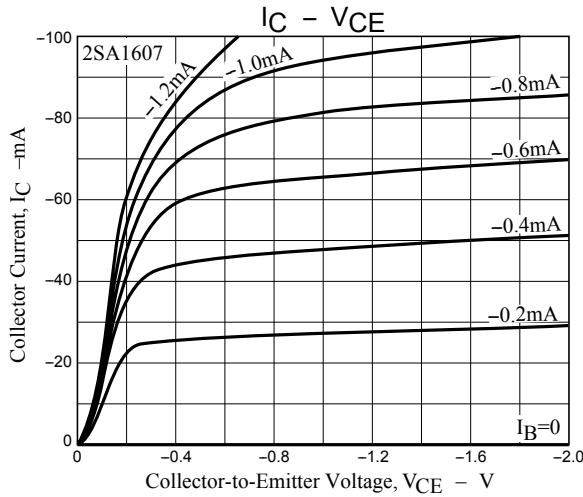
■ Classification of h_{FE}

Marking	YL3	YL4
Rank	3	4
h _{FE}	60~120	90~180

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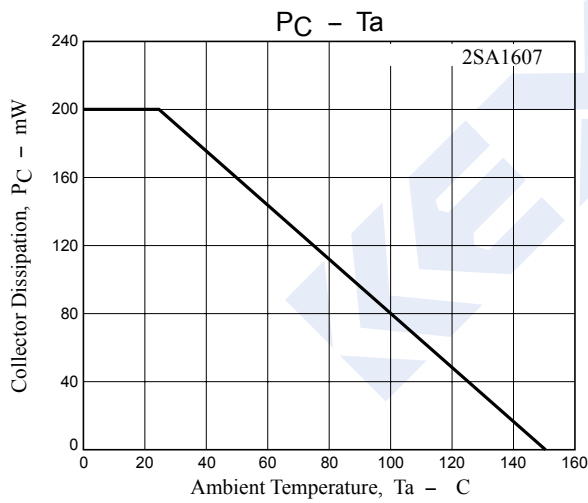
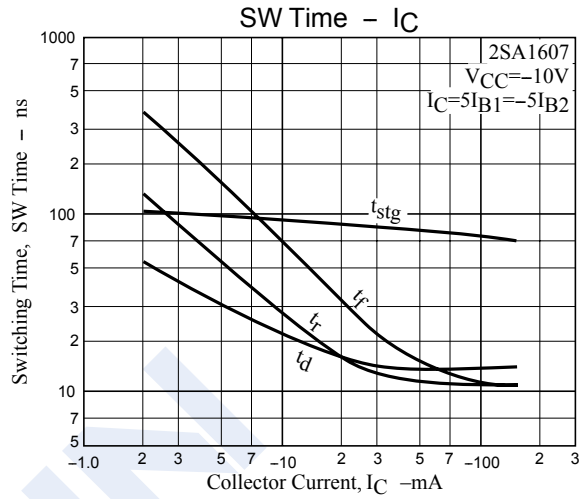
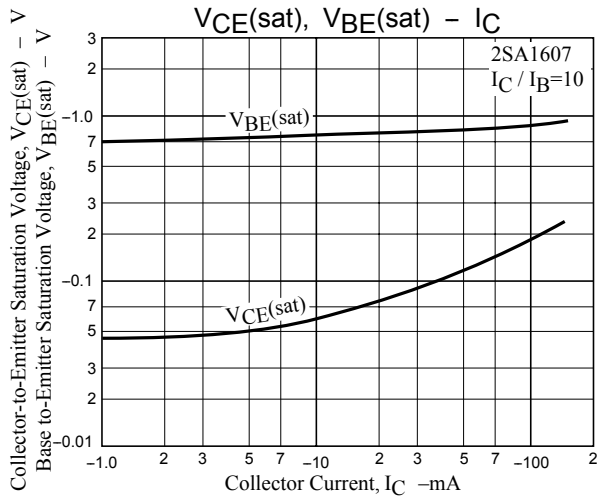
■ Typical Characteristics



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■ Typical Characteristics



Switching Time Test Circuit

