



2SA1207/2SC2909

High-Voltage Switching AF 60W Predriver Applications

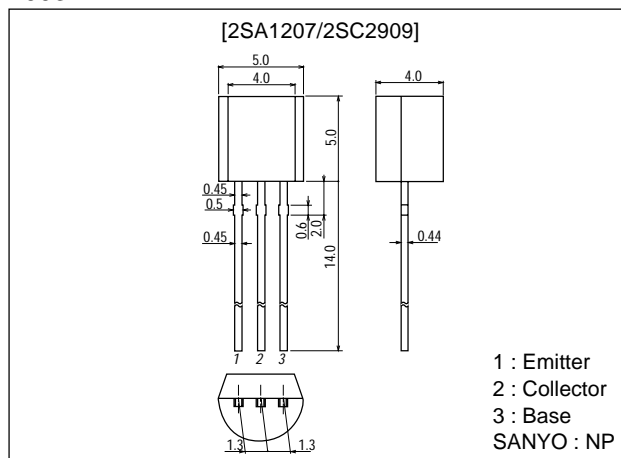
Features

- Adoption of FBET process.
- High breakdown voltage.
- Excellent linearity of h_{FE} and small C_{ob} .
- Fast switching speed.

Package Dimensions

unit:mm

2003B



() : 2SA1207

Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Condition	Rating	Unit
Collector-to-Base Voltage	CBO		(V)180	
Collector-to-Emitter Voltage	CEO		(V)160	
Emitter-to-Base Voltage	EBO		(V)5	
Collector Current	C		(A)70	m
Collector Current (Pulse)	CP		(A)140	m
Collector Dissipation	C		600	m
Junction Temperature	T		150	$^\circ\text{C}$
Storage Temperature	Tst		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			mμ	tx	ma	
Collector Cutoff Current	CBO	$V_{CB}=(-)80\text{V}, I_E=0$			(A)0.	μ
Emitter Cutoff Current	EBO	$V_{EB}=(-)4\text{V}, I_C=0$			(A)0.	μ
DC Current Gain	FE	$V_{CE}=(-)5\text{V}, I_C=(-)10\text{mA}$	100		400	
Gain-Bandwidth Product	T	$V_{CE}=(-)10\text{V}, I_C=0-10\text{mA}$		15		MH
Output Capacitance	ob	$V_{CB}=0-10\text{V}, f=1\text{MHz}$		(pF)2.		p
Collector-to-Emitter Saturation Voltage	CE(sat)	$I_C=(-)30\text{mA}, I_B=(-)3\text{mA}$		0.08 (-0.14)	0.3 (-0.4)	V

* : The 2SA1207/2SC2909 are classified by 10mA h_{FE} as follows :

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Rank	S	T
h_{FE}	100 to 200	100 to 28 200 to 40

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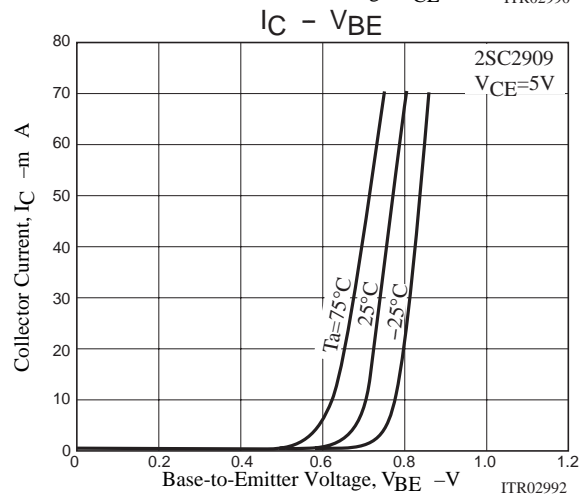
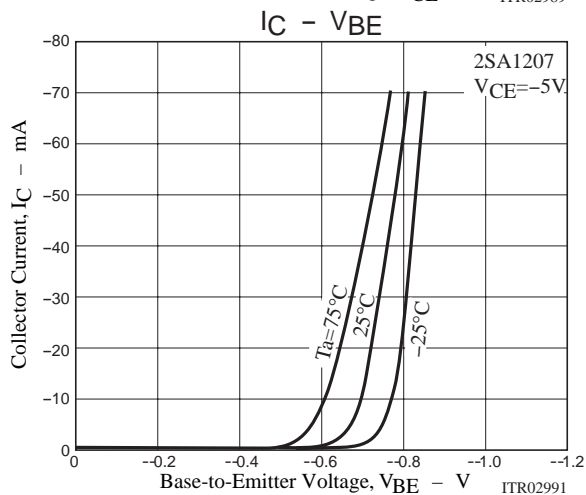
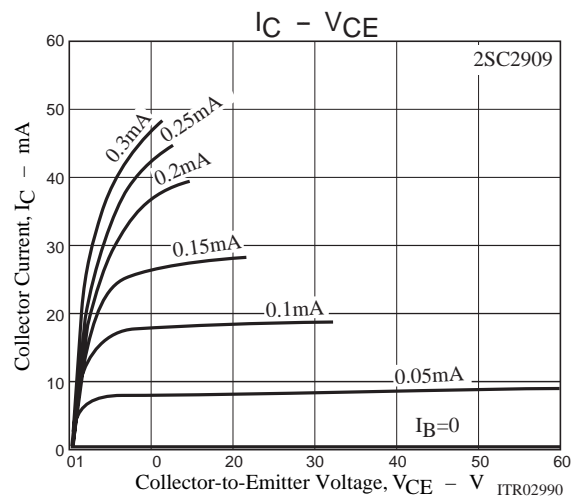
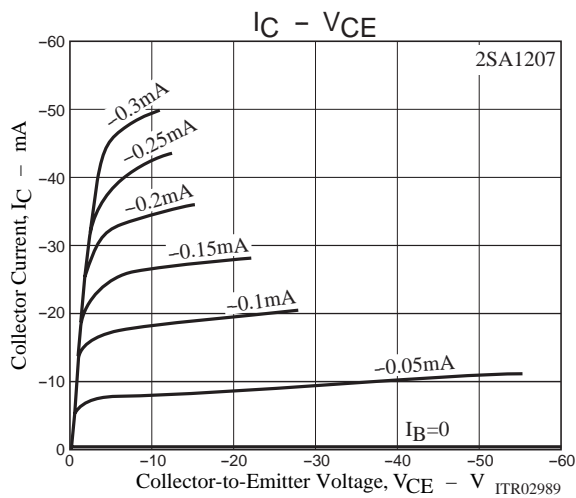
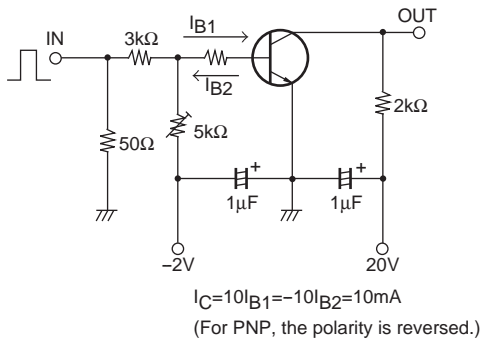
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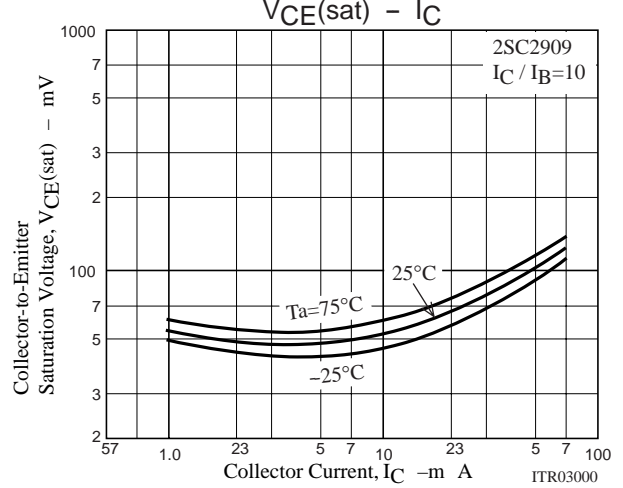
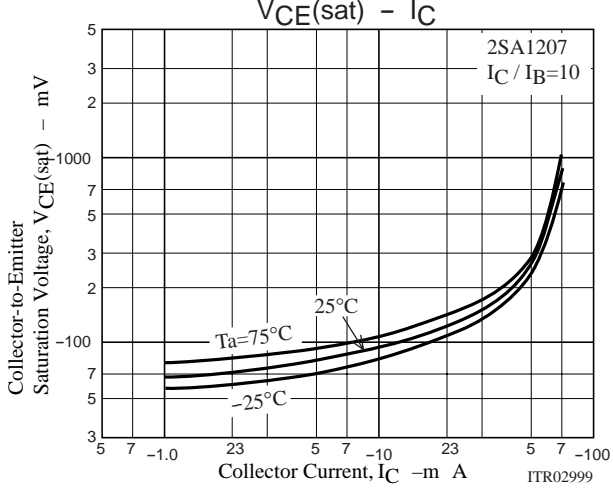
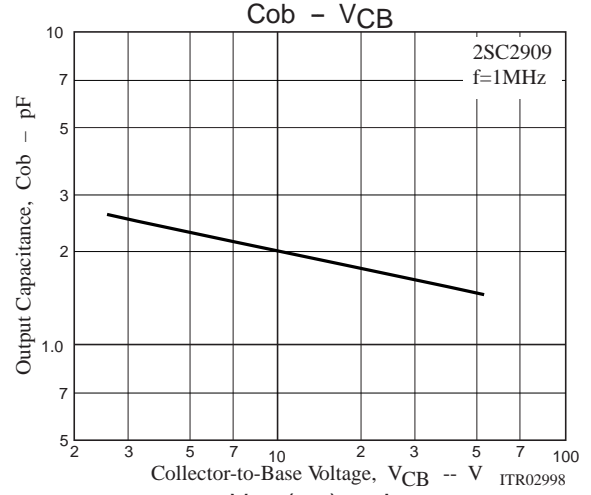
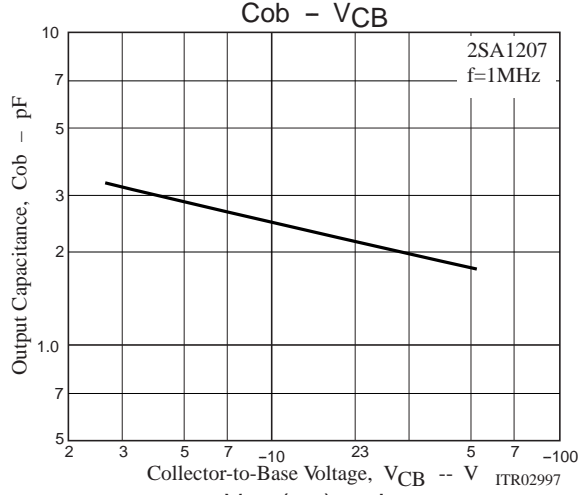
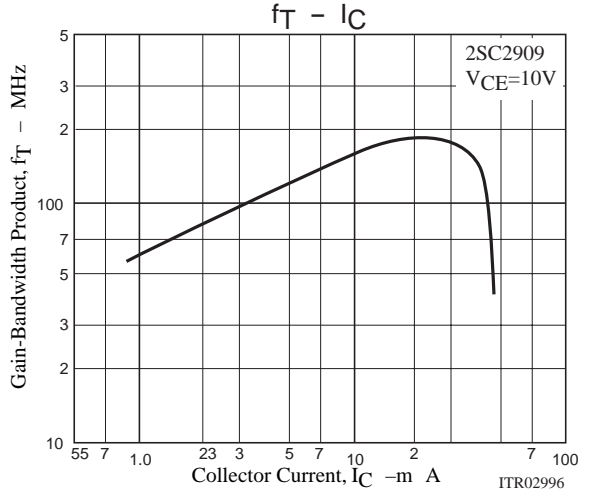
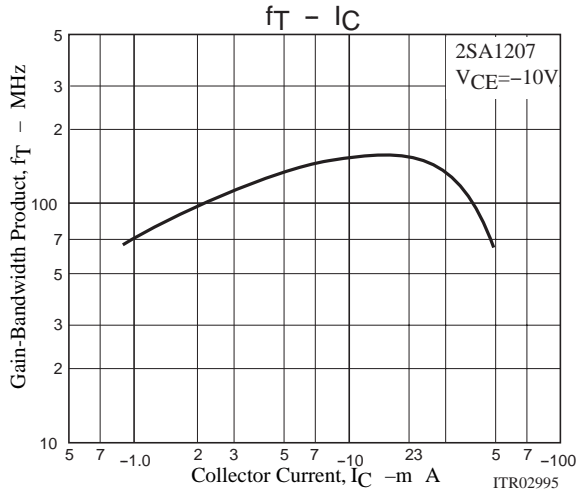
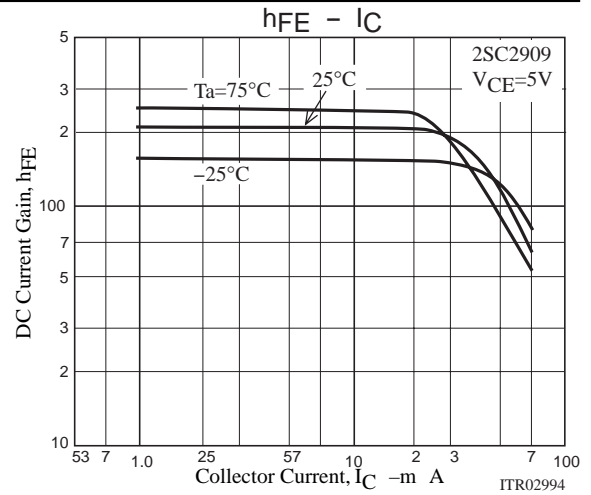
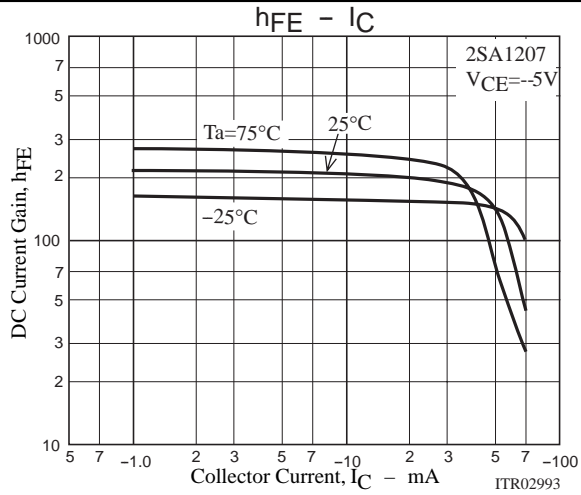
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Parameter	Symbol	Condition	Ratings			Unit
			min	typ	max	
Turn-ON Time	on	See specified Test Circuit		0s		μ
Fall Time	f	See specified Test Circuit		0s		μ
Storage Time	stg	See specified Test Circuit		1s		μ

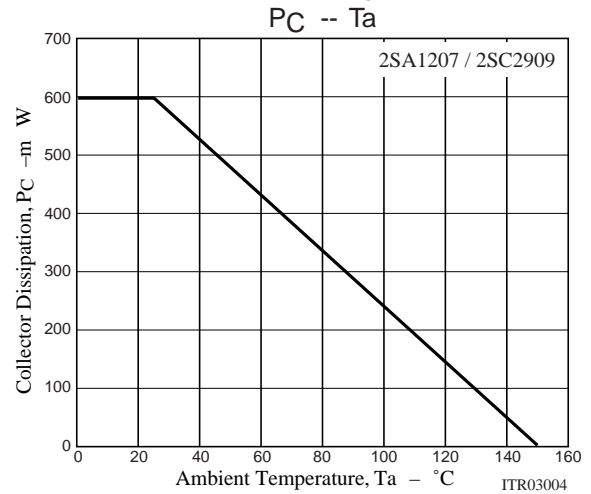
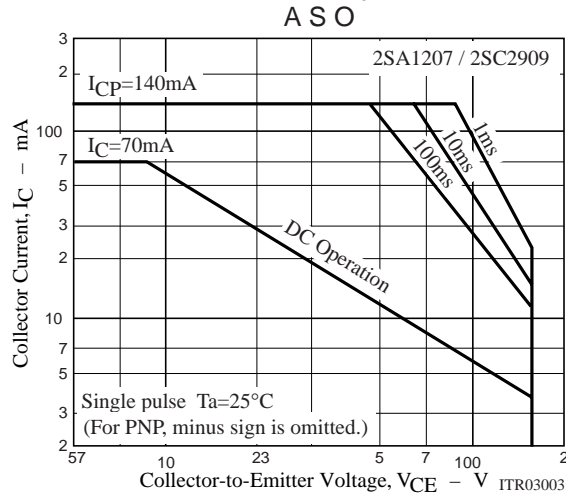
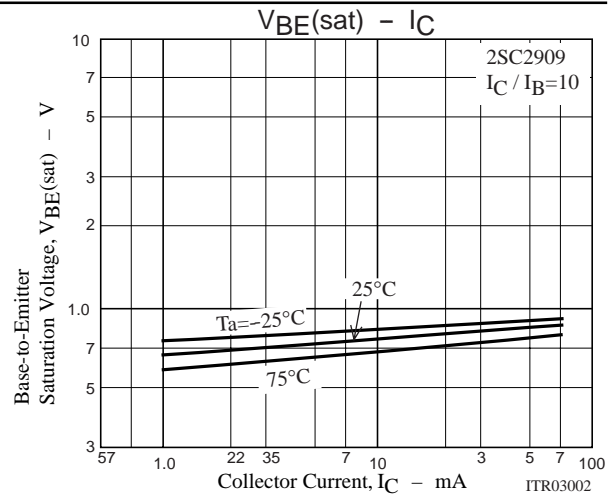
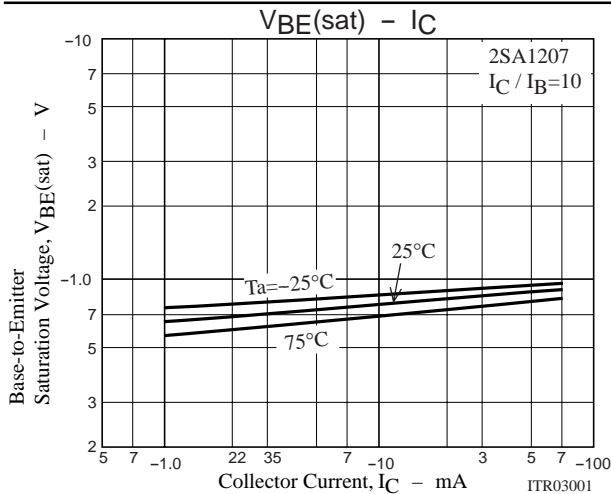
Switching Time Test Circuit



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