

<b>SANYO</b>	No.778E	<b>2SA1207/2SC2909</b>
		PNP/NPN Epitaxial Planar Silicon Transistors 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.

( ): 2SA1207

**Absolute Maximum Ratings at  $T_a = 25^\circ C$**

			unit
Collector to Base Voltage	$V_{CB0}$	(-)180	V
Collector to Emitter Voltage	$V_{CE0}$	(-)160	V
Emitter to Base Voltage	$V_{EB0}$	(-)5	V
Collector Current	$I_C$	(-)70	mA
Collector Current(Pulse)	$I_{CP}$	(-)140	mA
Collector Dissipation	$P_C$	600	mW
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ C$

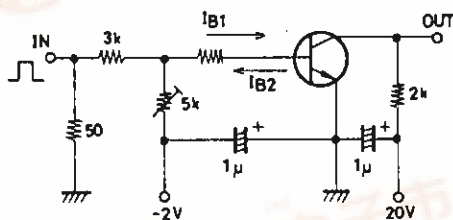
**Electrical Characteristics at  $T_a = 25^\circ C$**

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)80V, I_E = 0$			(-)0.1	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)4V, I_C = 0$			(-)0.1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE} = (-)5V, I_C = (-)10mA$	100*		400*	
Gain-Bandwidth Product	$f_T$	$V_{CE} = (-)10V, I_C = (-)10mA$		150		MHz
Output Capacitance	$c_{ob}$	$V_{CB} = (-)10V, f = 1MHz$		(2.5)2.0		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)30mA, I_B = (-)3mA$		0.08	0.3	V
				(0.14)	(0.4)	
Turn-ON Time	$t_{on}$	See specified Test Circuit.		0.1		$\mu s$
Fall Time	$t_f$	"		0.2		$\mu s$
Storage Time	$t_{stg}$	"		1.0		$\mu s$

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

100 R	200	140 S	280	200 T	400
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**Switching Time Test Circuit**

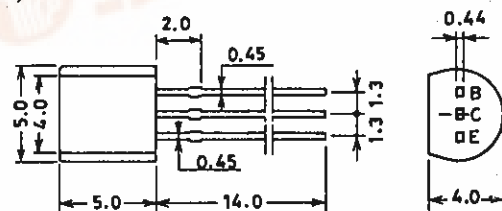


$I_C = 10I_{B1} = -10I_{B2} = 10mA$   
(For PNP, the polarity is reversed.)

Unit(Resistance :  $\Omega$ , Capacitance : F)

**Package Dimensions 2003A**

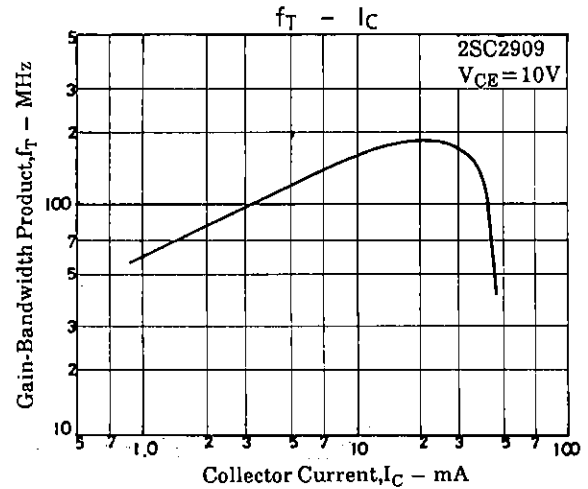
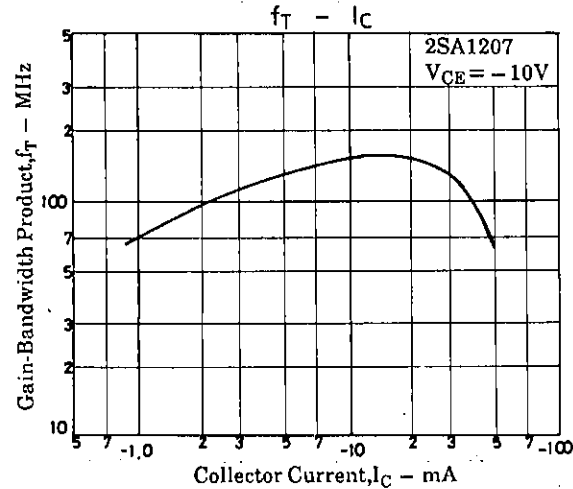
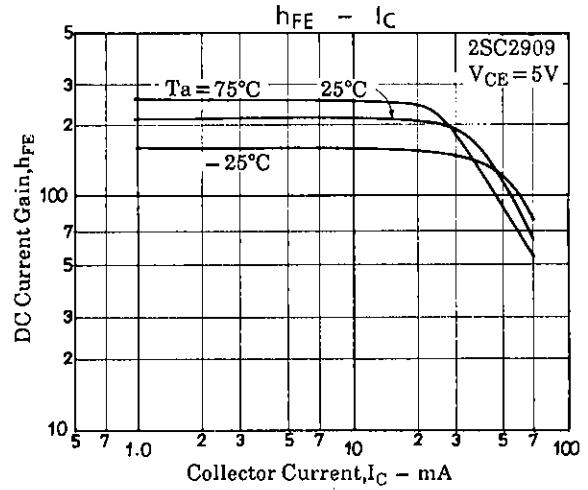
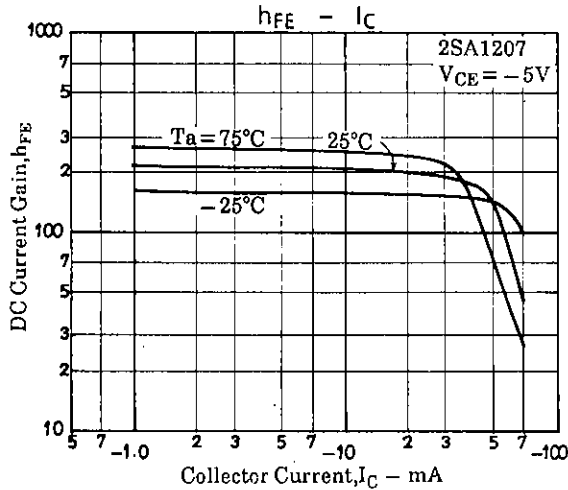
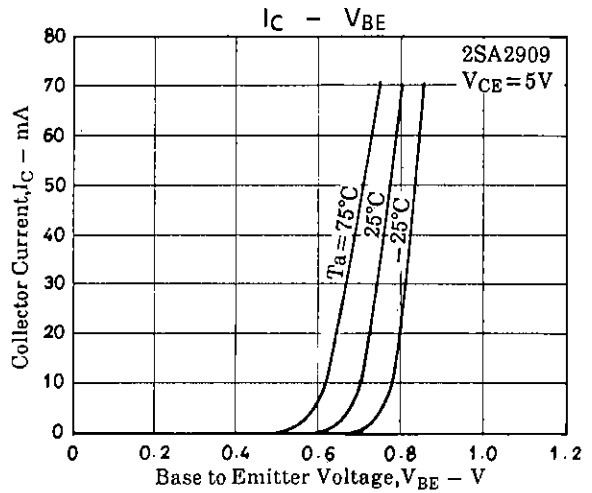
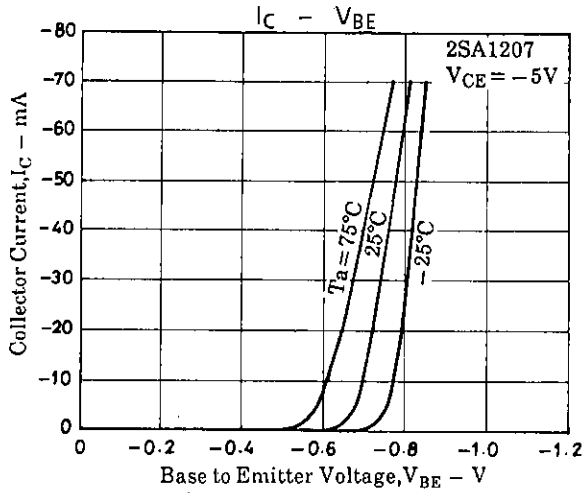
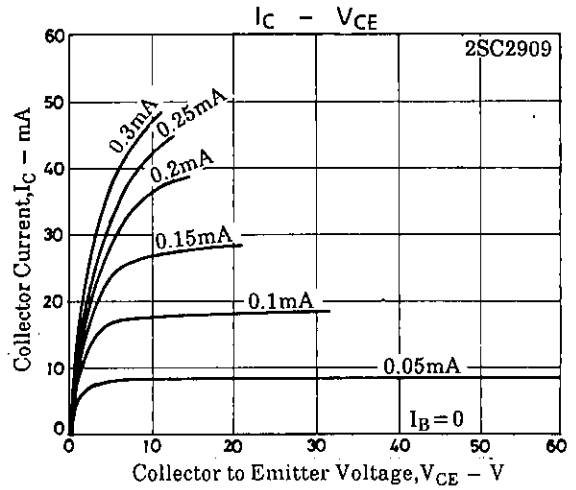
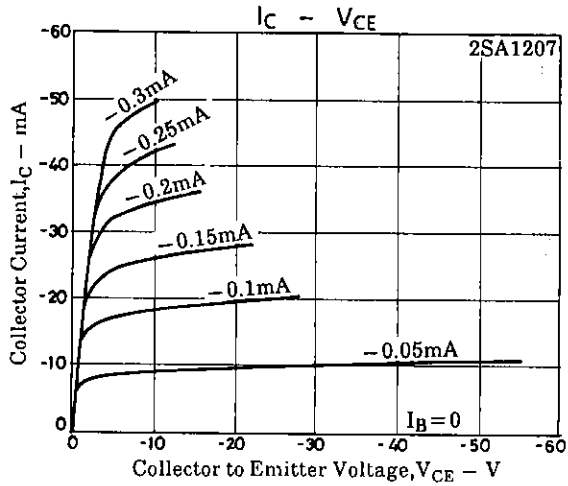
(unit: mm)



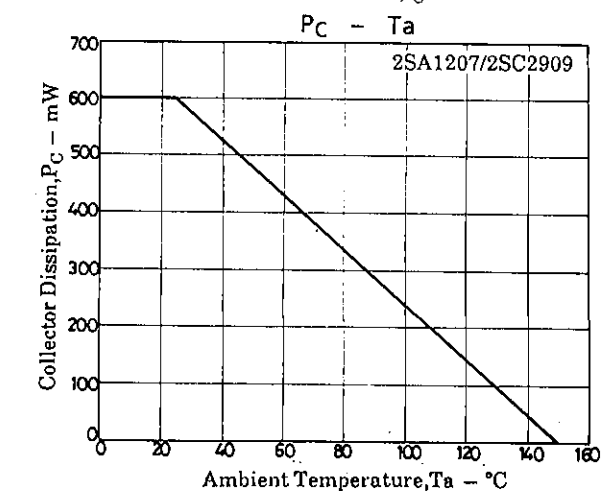
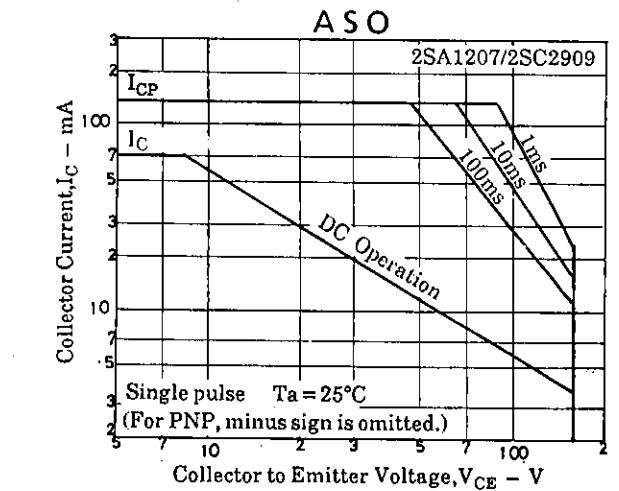
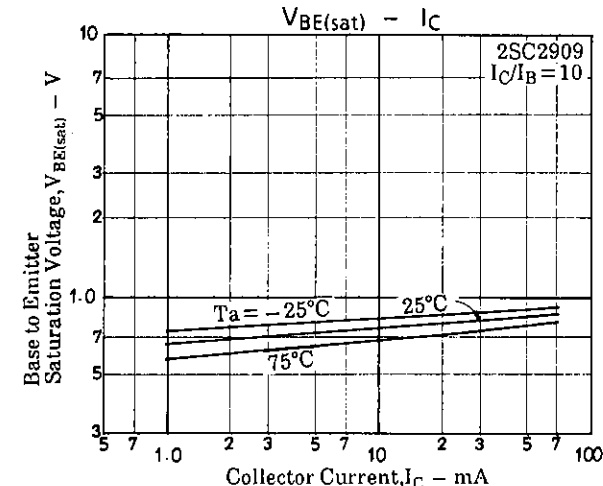
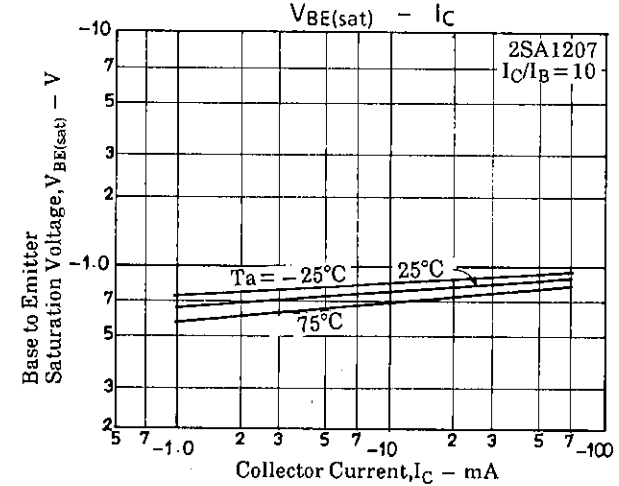
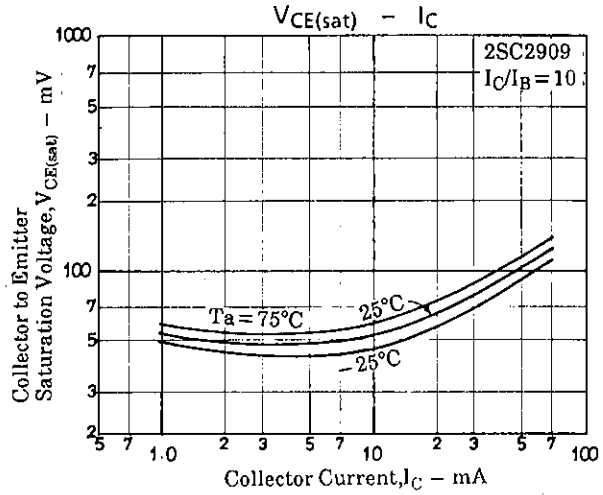
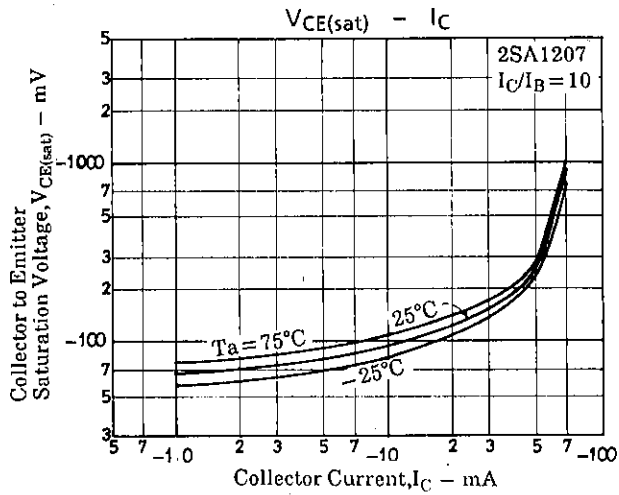
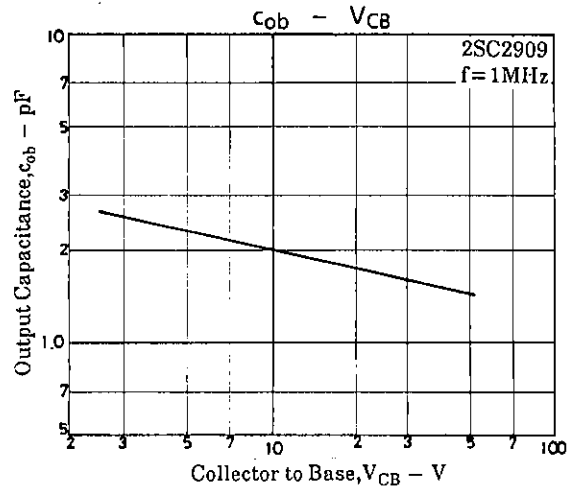
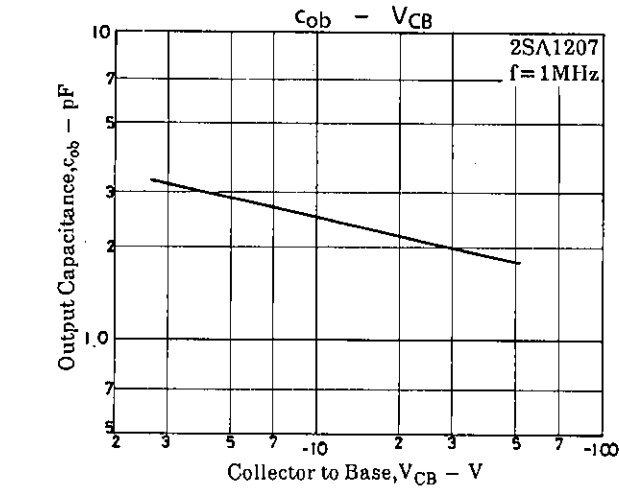
JEDEC: TO-92      B: Base  
EIAJ : SC-43      C: Collector  
SANYO: NP        E: Emitter



2SA1207/2SC2909



## 2SA1207/2SC2909



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