



# FP208

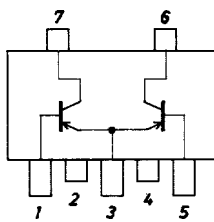
## PNP Epitaxial Planar Silicon Transistor

### Driver Applications

#### Features

- Composite type with 2 PNP transistors in one package, facilitating high-density mounting.
- The FP208 is composed of 2 chips each equivalent to the 2SB1121.

#### Electrical Connection

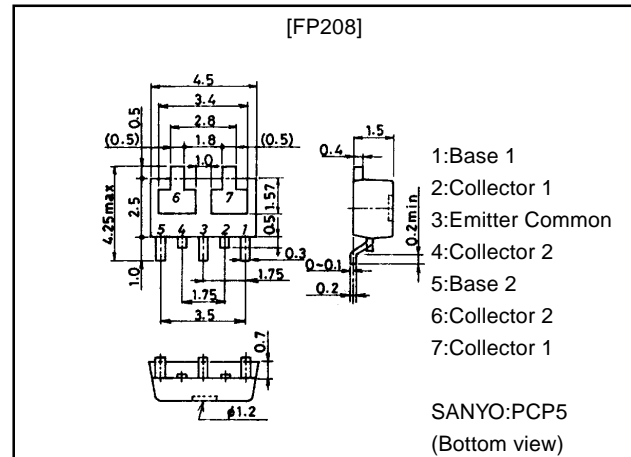


- 1:Base 1  
2:Collector 1  
3:Emitter Common  
4:Collector 2  
5:Base 2  
6:Collector 2  
7:Collector 1  
(Top view)

#### Package Dimensions

unit:mm

2097B



#### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		-30	V
Collector-to-Emitter Voltage	$V_{CEO}$		-25	V
Emitter-to-Base Voltage	$V_{EBO}$		-6	V
Collector Current	$I_C$		-2	A
Collector Current (Pulse)	$I_{CP}$		-5	A
Collector Dissipation	$P_C$		0.8	W
Total Power Dissipation	$P_T$	Mounted on ceramic board (250mm <sup>2</sup> ×0.8mm) 1unit	1.1	W
Base Current	$I_B$	Mounted on ceramic board (250mm <sup>2</sup> ×0.8mm)	-400	mA
Junction Temperature	$T_J$		150	°C
Storage Temperature	$T_{stg}$		-55 to +150	°C

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

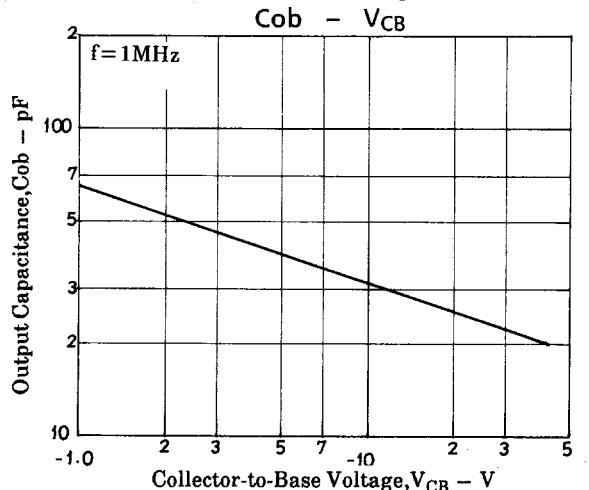
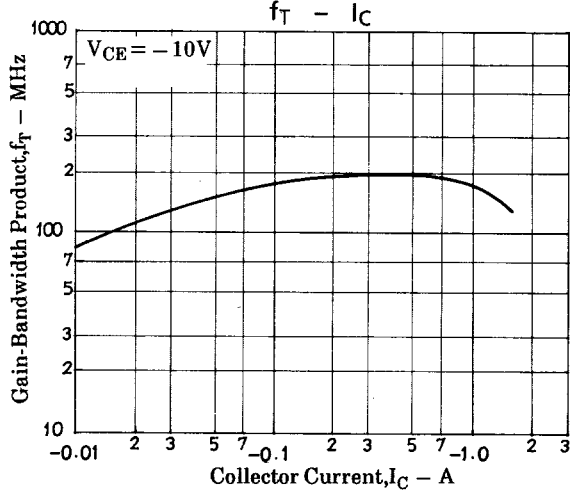
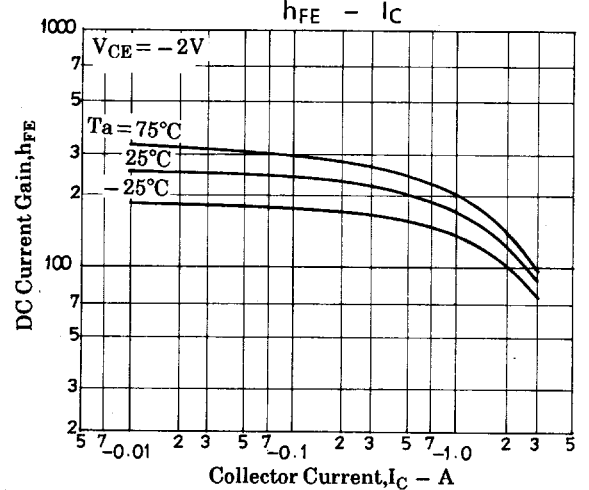
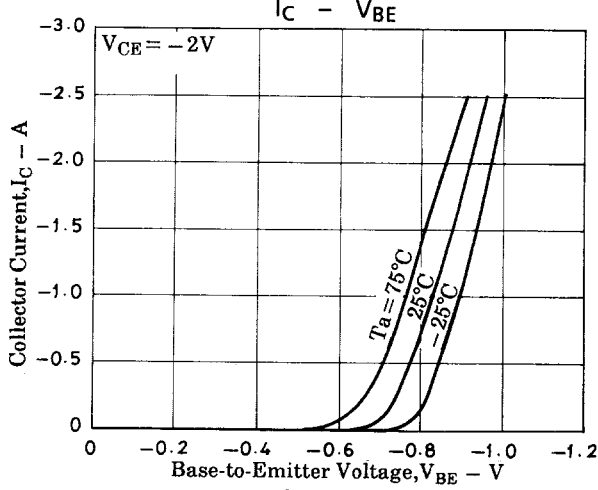
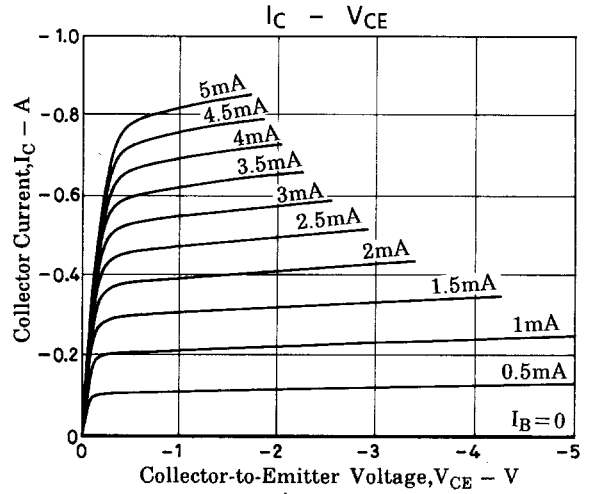
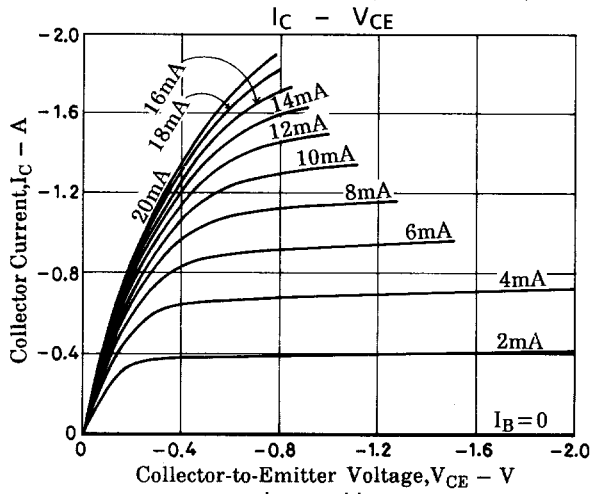
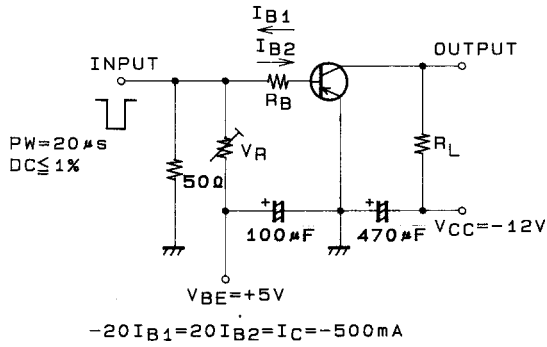
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=-20V, I_E=0$			-100	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=-4V, I_C=0$			-100	nA
DC Current Gain	$h_{FE}$	$V_{CE}=-2V, I_C=-100mA$	140		400	
Gain-Bandwidth Product	$f_T$	$V_{CE}=-10V, I_C=-50mA$		150		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=-10V, f=1MHz$		32		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=-1.5A, I_B=-75mA$	-0.35		-0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=-1.5A, I_B=-75mA$	-0.85		-1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-30			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1mA, R_{BE}=\infty$	-25			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-6			V
Turn-ON Time	$t_{on}$	See specified Test Circuit		60		ns
Storage Time	$t_{stg}$	See specified Test Circuit		350		ns
Fall Time	$t_f$	See specified Test Circuit		25		ns

Marking:208

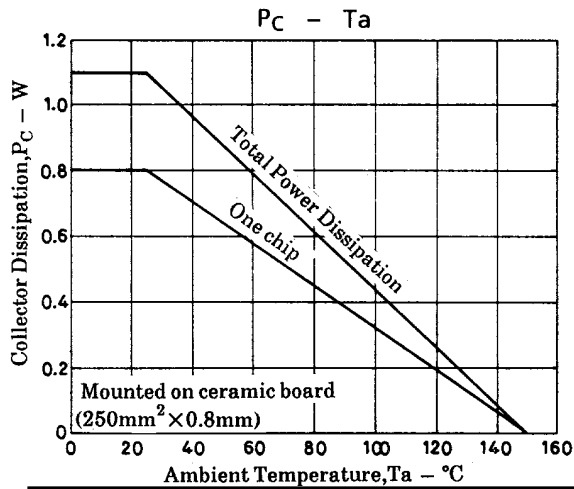
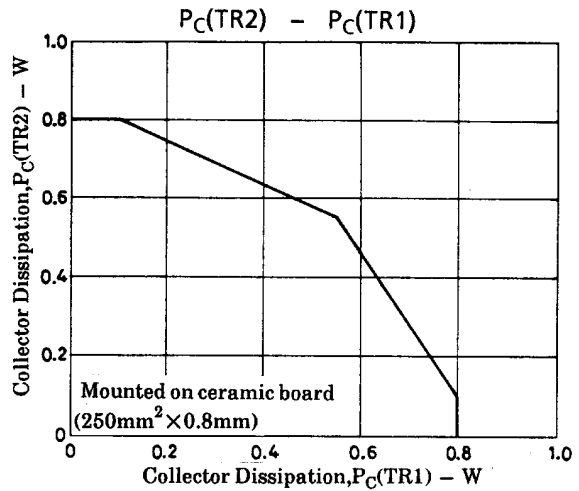
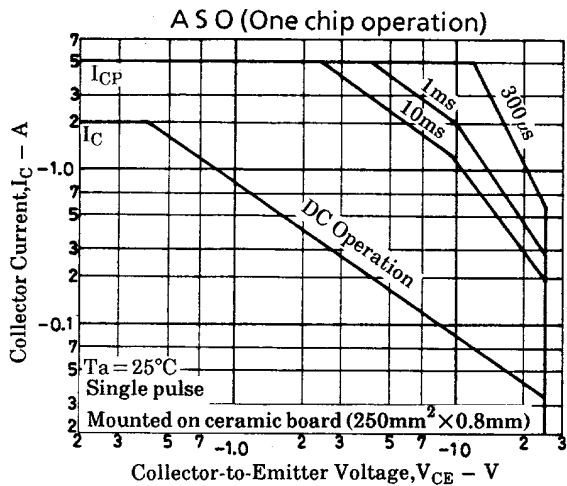
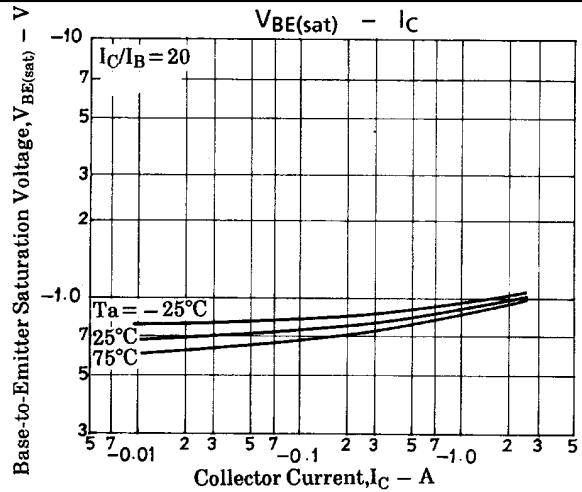
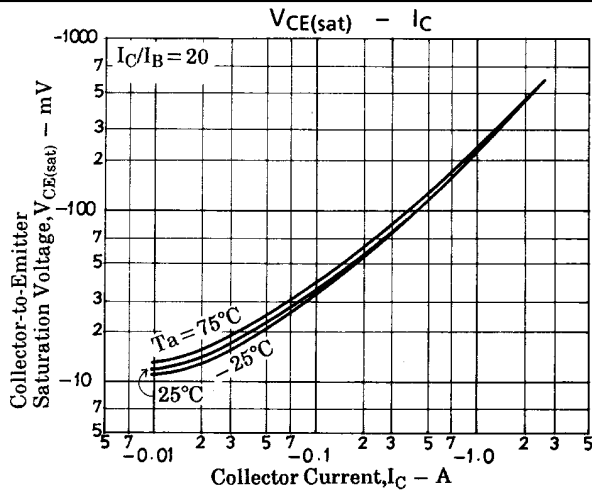
### SANYO Electric Co.,Ltd. Semiconductor Business Headquarters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

Switching Time Test Circuit



# FP208



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