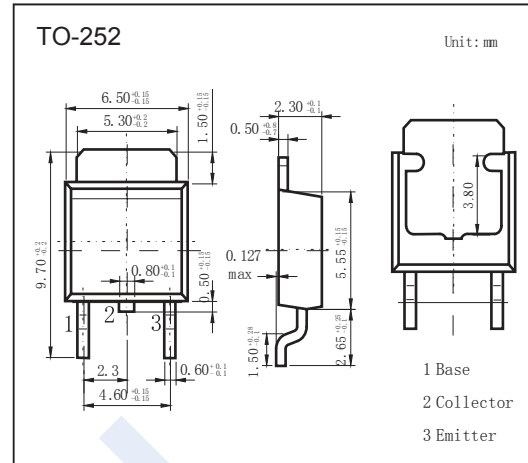


## PNP Transistors

## 2SB1202



### ■ Features

- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Large current capacity and wide ASO.
- Complementary to 2SD1802

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V <sub>CB0</sub>	-60	V
Collector - Emitter Voltage	V <sub>CE0</sub>	-50	
Emitter - Base Voltage	V <sub>EB0</sub>	-6	
Collector Current - Continuous	I <sub>C</sub>	-3	A
Collector Current - Pulse	I <sub>CP</sub>	-6	
Collector Power Dissipation	P <sub>C</sub>	15	W
T <sub>c</sub> = 25°C		1	
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature range	T <sub>stg</sub>	-55 to 150	

### ■ 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	-60			V
Collector- emitter breakdown voltage	V <sub>CE0</sub>	I <sub>C</sub> = -1 mA, R <sub>BE</sub> = ∞	-50			
Emitter - base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = -100 μA, I <sub>C</sub> = 0	-6			
Collector-base cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = -50V, I <sub>E</sub> = 0			-1	μA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> = -5V, I <sub>C</sub> = 0			-1	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -2 A, I <sub>B</sub> = -100mA		-0.35	-0.7	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -2 A, I <sub>B</sub> = -100mA		-0.94	-1.2	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = -2V, I <sub>C</sub> = -100 mA	100		560	
		V <sub>CE</sub> = -2V, I <sub>C</sub> = -3 A	35			
Turn-ON Time	t <sub>on</sub>	See specified Test Circuit		70		ns
Storage Time	t <sub>stg</sub>			450		
Fall Time	t <sub>f</sub>			35		
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz		39		pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -50mA		150		MHz

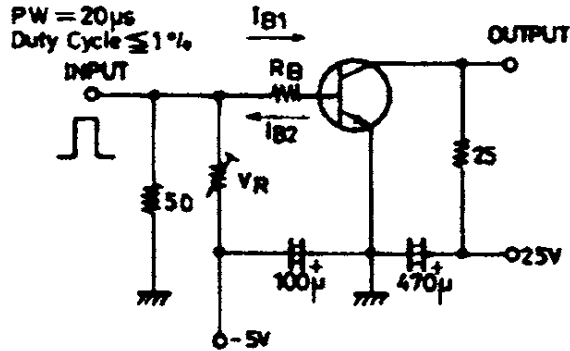
### ■ Classification of h<sub>FE</sub>(1)

Type	2SB1202-R	2SB1202-S	2SB1202-T	2SB1202-U
Range	100-200	140-280	200-400	280-560

### PNP Transistors

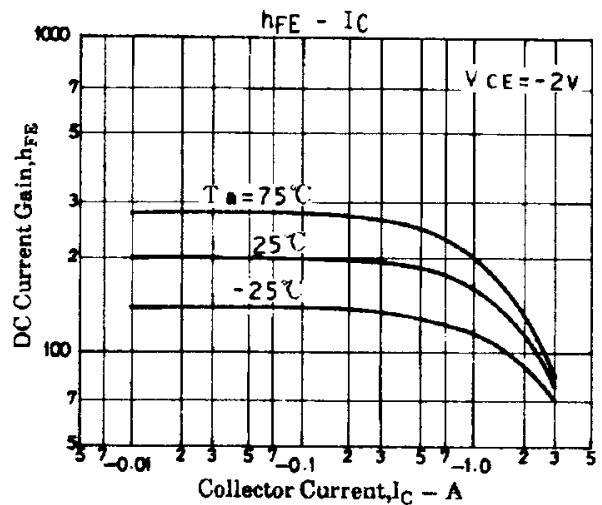
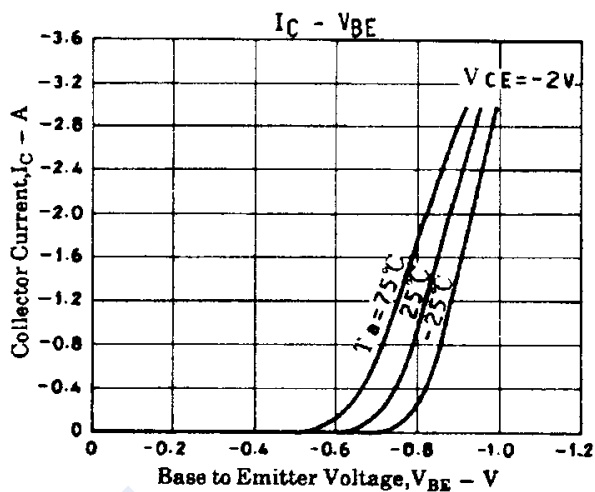
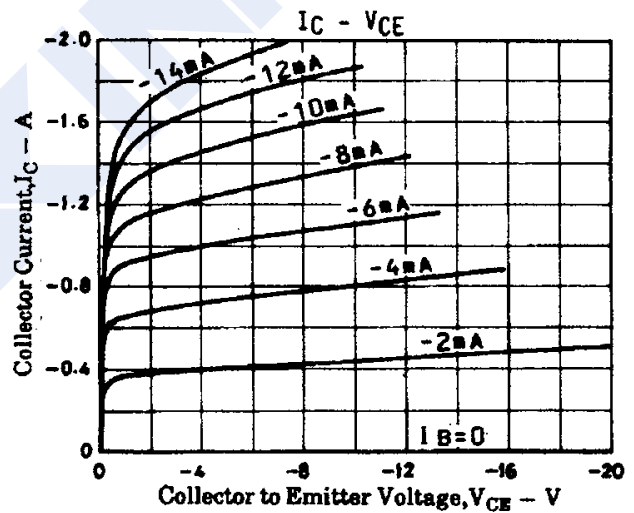
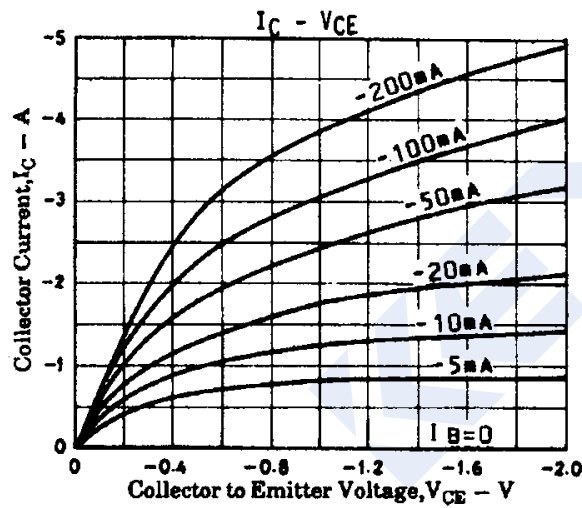
### 2SB1202

Switching Time Test Circuit



$$I_C = 10 I_{B1} = -10 I_{B2} = 1A$$

■ Typical Characteristics



### PNP Transistors

### 2SB1202

■ Typical Characteristics

