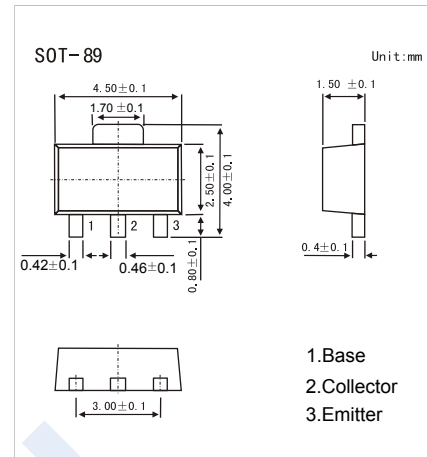


## PNP Transistors

### 2SA1730



#### ■ Features

- Large current capacity.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Small-sized package.

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	-50	V
Collector - Emitter Voltage	$V_{CE0}$	-40	
Emitter - Base Voltage	$V_{EB0}$	-5	
Collector Current - Continuous	$I_C$	-3	A
Collector Current -Pulse	$I_{Cp}$	-6	
Collector Power Dissipation (Note.1)	$P_C$	1.5	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature range	$T_{stg}$	-55 to 150	

Note.1: Mounted on ceramic board (250mm<sup>2</sup> X 0.8mm)

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = -100 \mu\text{A}$ , $I_E = 0$	-50			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = -1 \text{ mA}$ , $R_{BE} = \infty$	-40			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -100 \mu\text{A}$ , $I_C = 0$	-5			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = -40 \text{ V}$ , $I_E = 0$			-1	$\mu\text{A}$
Emitter cut-off current	$I_{EB0}$	$V_{EB} = -3 \text{ V}$ , $I_C = 0$			-1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.5 \text{ A}$ , $I_B = -75 \text{ mA}$		-0.3	-0.8	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1.5 \text{ A}$ , $I_B = -75 \text{ mA}$		-0.95	-1.3	
DC current gain	$h_{FE(1)}$	$V_{CE} = -2 \text{ V}$ , $I_C = -500 \text{ mA}$	70		280	
	$h_{FE(2)}$	$V_{CE} = -2 \text{ V}$ , $I_C = -3 \text{ A}$	25			
Turn-on Time	$t_{on}$	See specified Test Circuit		50	100	ns
Storage time	$t_{stg}$			120	220	
Turn-off time	$t_{off}$			150	300	
Collector output capacitance	$C_{ob}$	$V_{CB} = -10 \text{ V}$ , $f = 1 \text{ MHz}$		35		pF
Transition frequency	$f_T$	$V_{CE} = -2 \text{ V}$ , $I_C = -500 \text{ mA}$		300		MHz

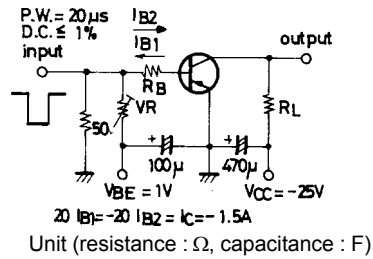
#### ■ Classification of $h_{FE(1)}$

Type	2SA1730-Q	2SA1730-R	2SA1730-S
Range	70-140	100-200	140-280
Marking	AHQ	AHR	AHS

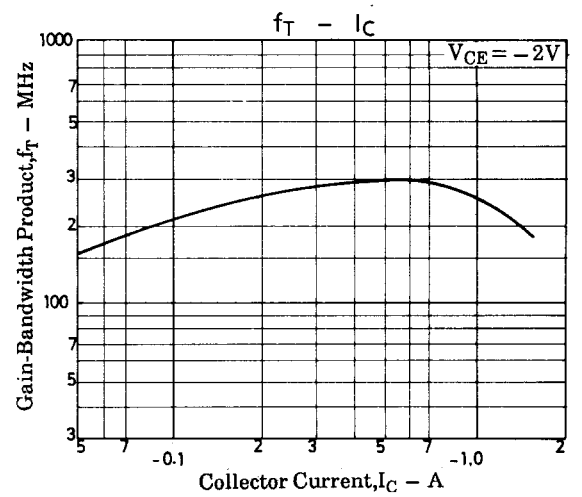
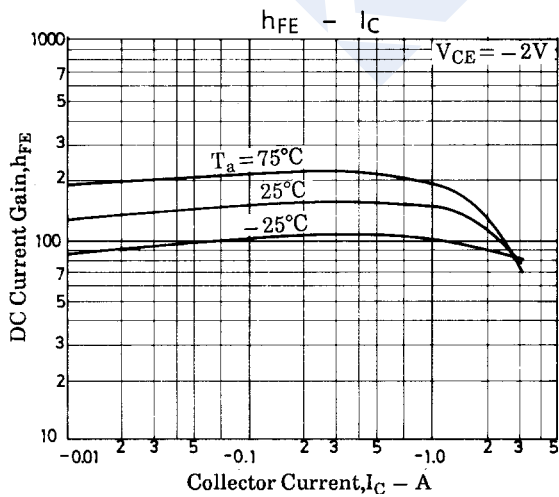
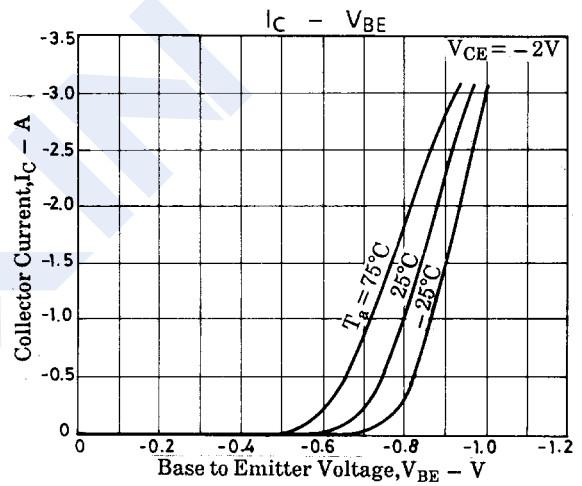
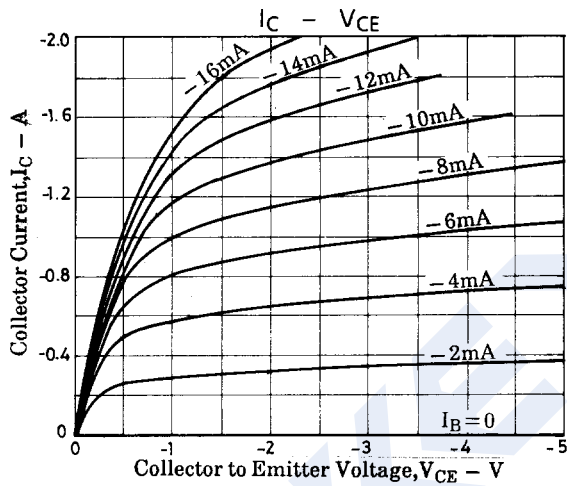
### PNP Transistors

### 2SA1730

#### Switching Time Test Circuit



#### ■ Typical Characteristics



### PNP Transistors

### 2SA1730

■ Typical Characteristics

