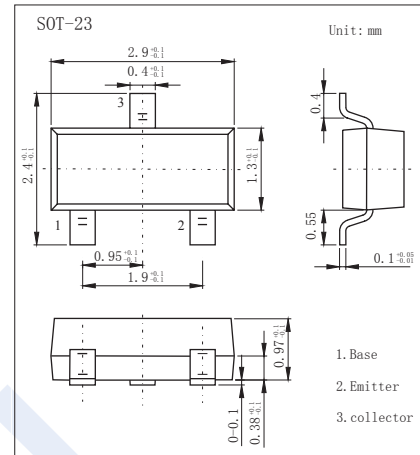


## PNP Transistors

### 2SB815

#### ■ Features

- Large current capacity ( $I_C=0.7A$ ) and low-saturation voltage.
- Complimentary to 2SD1048.



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CBO}$	-20	V
Collector - Emitter Voltage	$V_{CEO}$	-15	
Emitter - Base Voltage	$V_{EBO}$	-5	
Collector Current - Continuous	$I_C$	-700	mA
Collector Current - Pulse	$I_{CP}$	-1.5	A
Collector Power Dissipation	$P_C$	200	mW
Junction Temperature	$T_J$	125	$^\circ\text{C}$
Storage Temperature range	$T_{stg}$	-55 to 125	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CBO}$	$I_C = -100 \mu\text{A}$ , $I_E = 0$	-20			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_C = -1 \text{ mA}$ , $I_B = 0$	-15			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = -100 \mu\text{A}$ , $I_C = 0$	-5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = -15\text{V}$ , $I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -4\text{V}$ , $I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -5 \text{ mA}$ , $I_B = -0.5 \text{ mA}$		-15	-35	mV
		$I_C = -100 \text{ mA}$ , $I_B = -10 \text{ mA}$		-60	-120	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100 \text{ mA}$ , $I_B = -10 \text{ mA}$			-1.2	V
DC current gain	$h_{FE}$	$V_{CE} = -2\text{V}$ , $I_C = -50 \text{ mA}$	200		600	
		$V_{CE} = -2\text{V}$ , $I_C = -500 \text{ mA}$	80			
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}$ , $I_E = 0$ , $f = 1 \text{ MHz}$		13		pF
Transition frequency	$f_T$	$V_{CE} = -10\text{V}$ , $I_C = -50 \text{ mA}$		250		MHz

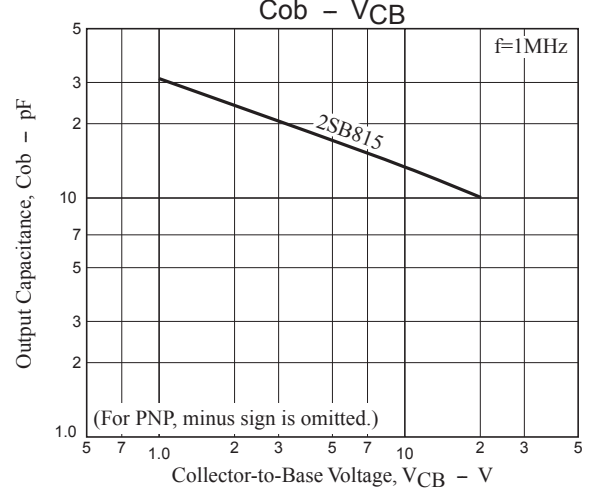
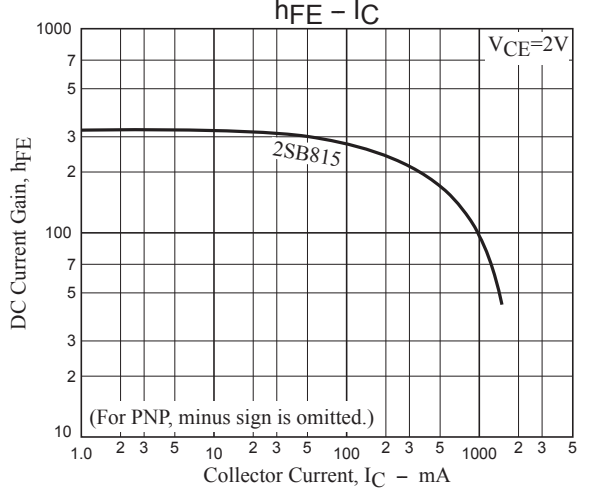
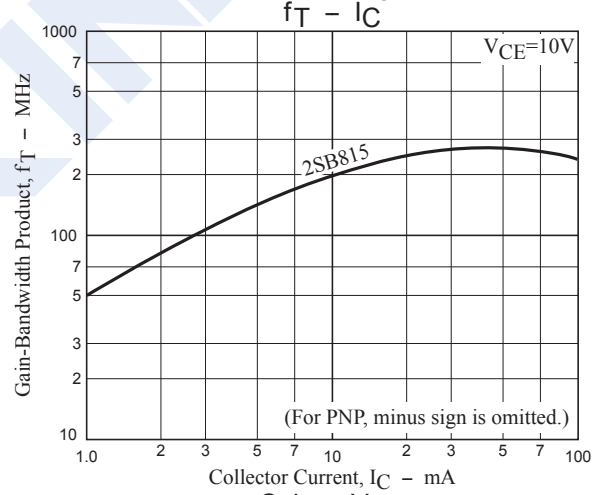
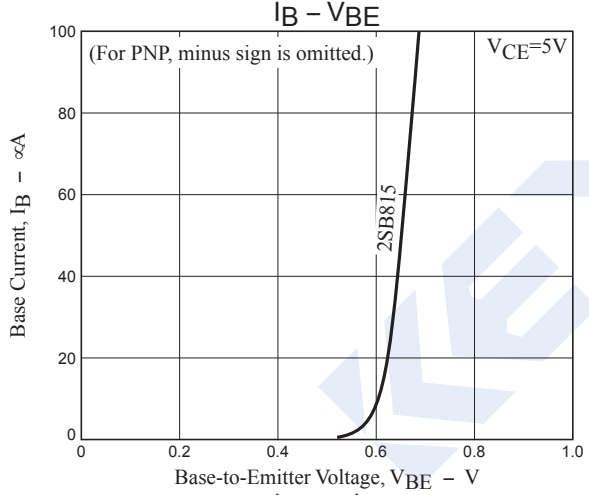
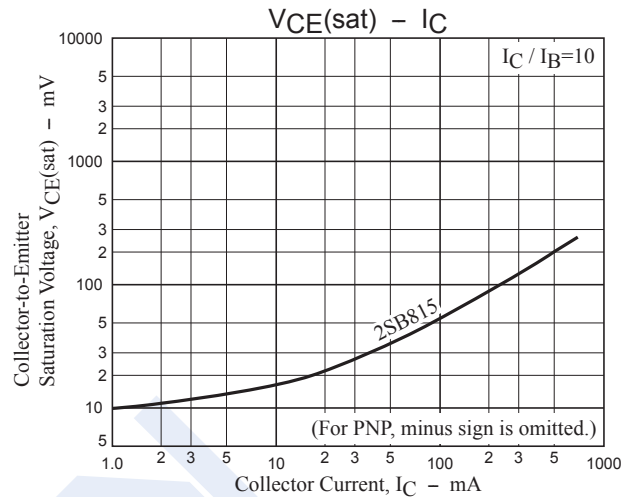
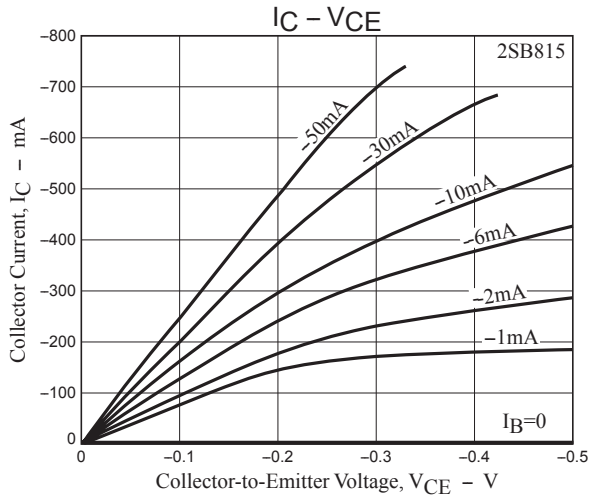
#### ■ Classification of $h_{FE}(1)$

Type	2SB815-B6	2SB815-B7
Range	200-400	300-600
Marking	B6	B7

### PNP Transistors

### 2SB815

■ Typical Characteristics



## PNP Transistors

### 2SB815

#### ■ Typical Characteristics

