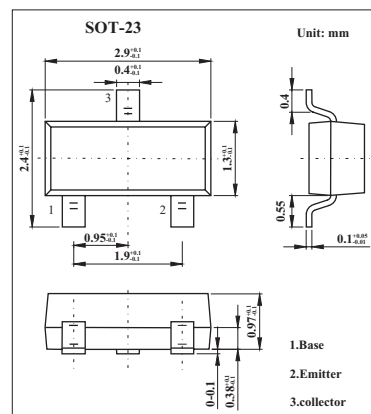


## PNP Epitaxial Planar Silicon Transistors

## 2SA1815

## ■ Features

- High power gain:PG=25dB typ(f=100MHz)
- High cutoff frequency:fT=750MHz typ
- Low collector-to-emitter saturation voltage



## ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	-15	V
Collector-emitter voltage	V <sub>CEO</sub>	-12	V
Emitter-base voltage	V <sub>EB0</sub>	-3	V
Collector current	I <sub>c</sub>	-50	mA
Collector dissipation	P <sub>c</sub>	250	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector cutoff current	I <sub>cBO</sub>	V <sub>CB</sub> = -12V, I <sub>E</sub> = 0			-0.1	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = -2V, I <sub>C</sub> = 0			-0.1	μA
DC current Gain	h <sub>FE</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -5mA	60		270	
Gain bandwidth product	F <sub>t</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -5mA		750		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, f = 1MHz		1.2	1.6	pF
Reverse Transfer Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, f = 1MHz		0.9		pF
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA		-0.1	-0.3	V
Power Gain	P <sub>G</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -10mA, f = 100MHz		25		dB

## ■ hFE Classification

Marking	JS		
Rank	3	4	5
hFE	60 to 120	90 to 180	135 to 270