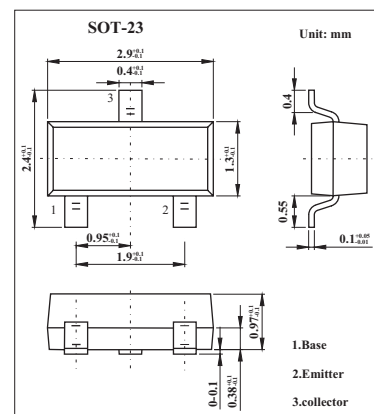


## NPN Transistor

## 2SC1815

## ■ Features

- Power dissipation

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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	60	V
Collector to Emitter Voltage	$V_{CEO}$	50	V
Emitter to Base Voltage	$V_{EBO}$	5	V
Collector Current to Continuous	$I_C$	150	mA
Collector Power Dissipation	$P_C$	200	mW
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to 125	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector to base breakdown voltage	$V_{CBO}$	$I_C = 100\ \mu\text{A}$ , $I_E = 0$	60			V
Collector to emitter breakdown voltage	$V_{CEO}$	$I_C = 0.1\text{mA}$ , $I_B = 0$	50			V
Collector cut to off current	$I_{CBO}$	$V_{CB} = 60\text{V}$ , $I_E = 0$			0.1	$\mu\text{A}$
Collector cut to off current	$I_{CEO}$	$V_{CE} = 50\text{V}$ , $I_B = 0$			0.1	$\mu\text{A}$
Emitter cut to off current	$I_{EBO}$	$V_{EB} = 5\text{V}$ , $I_C = 0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = 6\text{V}$ , $I_C = 2\text{mA}$	130		400	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\text{mA}$ , $I_B = 10\text{mA}$			0.25	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100\text{mA}$ , $I_B = 10\text{mA}$			1	V
Transition frequency	$f_T$	$V_{CE} = 10\text{V}$ , $I_C = 1\text{mA}$ , $f = 30\text{MHz}$	80			MHz

■  $h_{FE}$  Classification

Marking	HF	
Rank	L	H
$h_{FE}$	130~200	200~400

## 2SC1815

## ■ Typical Characteristics

