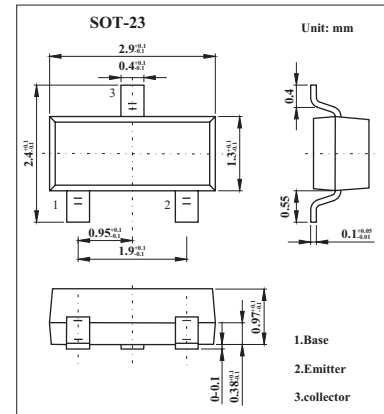


## PNP Transistor

### 2SA1015

#### ■ Features

- High voltage and high current  
 $V_{CE0}=-50V(\text{min.}), I_C=-150mA(\text{max.})$
- Low noise:  $NF=1dB(\text{Typ.})$  at  $f=1KHz$



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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	-50	V
Collector-Emitter Voltage	$V_{CEO}$	-50	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current -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	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{CBO}$	$I_C = -100 \mu A, I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{CEO}$	$I_C = -0.1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{EBO}$	$I_E = -100 \mu A, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -50V, I_E = 0$			-0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE} = -50V, I_B = 0$			-0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE} = -6V, I_C = -2mA$	130		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100 mA, I_B = -10mA$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100 mA, I_B = -10mA$			-1.1	V
Transition frequency	$f_T$	$V_{CE} = -10V, I_C = -1mA, f = 30MHz$	80			MHz

#### ■ $h_{FE}$ Classification

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