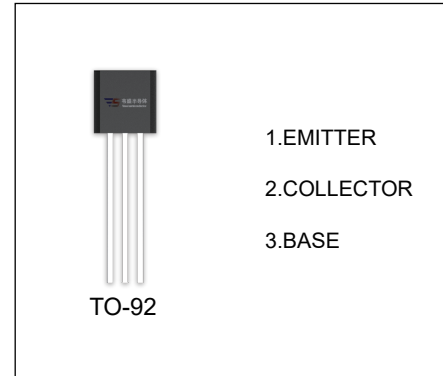


## 2SA1515 TRANSISTOR (PNP)

### FEATURES

- Low Collector-Emitter Saturation Voltage
- Low Transition Frequency



### ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SA1515	TO-92	Bulk	1000pcs/Bag
2SA1515-TA	TO-92	Tape	2000pcs/Box

### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	-40	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-32	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current -Continuous	-1	A
P <sub>D</sub>	Collector Power Dissipation	500	mW
R <sub>θJA</sub>	Thermal Resistance from Junction to Ambient	250	°C /W
T <sub>J</sub> , T <sub>stg</sub>	Operation Junction and Storage Temperature Range	-55~+150	°C

$T_a=25^\circ\text{C}$  unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -0.05\text{mA}, I_E = 0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-32			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -0.05\text{mA}, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -20\text{V}, I_E = 0$			-0.5	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -4\text{V}, I_C = 0$			-0.5	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = -3\text{V}, I_C = -0.1\text{A}$	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -0.5\text{A}, I_B = -0.05\text{A}$			-0.5	V
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$			30	pF
Transition frequency	$f_T$	$V_{CE} = -5\text{V}, I_C = -50\text{mA}$	50			MHz

#### CLASSIFICATION OF $h_{FE}$

RANK	P	Q	R
RANGE	82-180	120-270	180-390