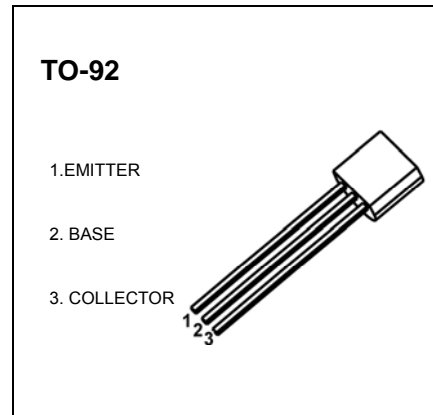


## TO-92 Plastic-Encapsulate Transistors

### S9015 TRANSISTOR (PNP)

#### FEATURES

- High Total Power Dissipation.( $P_C=0.45W$ )
- High  $h_{FE}$  and Good Linearity
- Complementary to S9014



#### MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	-50	V
$V_{CE0}$	Collector-Emitter Voltage	-45	V
$V_{EB0}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-0.1	A
$P_C$	Collector Power Dissipation	0.45	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55-150	$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}, I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -50\text{V}, I_E = 0$			-0.05	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{V}, I_C = 0$			-0.05	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = -5\text{V}, I_C = -1\text{mA}$	60		1000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -10\text{mA}$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100\text{mA}, I_B = -10\text{mA}$			-1	V
Transition frequency	$f_T$	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$ $f = 30\text{MHz}$	100			MHz

#### CLASSIFICATION OF $h_{FE(1)}$

Rank	A	B	C	D
Range	60-150	100-300	200-600	400-1000

# Typical Characteristics

# S9015

