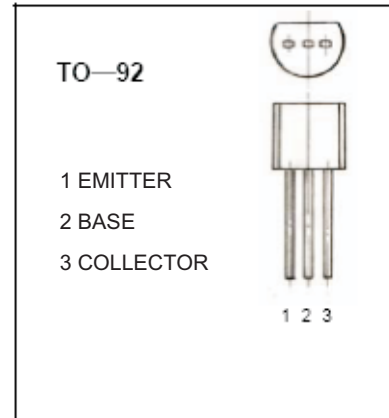


## PNP Transistors 2N3906

### ■ Features

- PNP silicon epitaxial planar transistor for switching and Amplifier applications



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

Parameter	Symbol	Rating	Unit
Collector- Base Voltage	$V_{CB0}$	-40	V
Collector - Emitter Voltage	$V_{CE0}$	-40	V
Emitter - Base Voltage	$V_{EB0}$	-5	V
Collector Current- Continuous	$I_C$	-0.2	A
Collector Dissipation	$P_C$	0.625	W
Junction and Storage Temperature	$T_J, T_{stg}$	-55 to 150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector - base breakdown voltage	$V_{CB0}$	$I_C = -100 \mu\text{A}, I_E = 0$	-40			V
Collector - emitter breakdown voltage	$V_{CE0}$	$I_C = -1 \text{ mA}, I_B = 0$	-40			V
Emitter- base breakdown voltage	$V_{EB0}$	$I_E = -100 \mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -40 \text{ V}, I_E = 0$			-0.1	$\mu\text{A}$
Collector cut-off current	$I_{CEO}$	$V_{CE} = -40 \text{ V}, V_{BE(off)} = -3\text{V}$			-50	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{V}, I_C = 0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = -1\text{V}, I_C = -10\text{mA}$	100		400	
		$V_{CE} = -1\text{V}, I_C = -50\text{mA}$	60			
		$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	30			
Collector- emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50 \text{ mA}, I_B = -5\text{mA}$			-0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -50 \text{ mA}, I_B = -5\text{mA}$			-0.95	V
Delay time	$t_d$	$V_{CC} = -3.0\text{V}, V_{BE} = 0.5\text{V}$			35	ns
Rise time	$t_r$	$I_C = -10\text{mA}, I_{B1} = -1.0\text{mA}$			35	
Storage time	$t_s$	$V_{CC} = -3.0\text{V}, I_C = -10\text{mA}$			225	ns
Fall time	$t_f$	$I_{B1} = I_{B2} = -1.0\text{mA}$			75	
Transition frequency	$f_T$	$V_{CE} = -20\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$	250			MHz