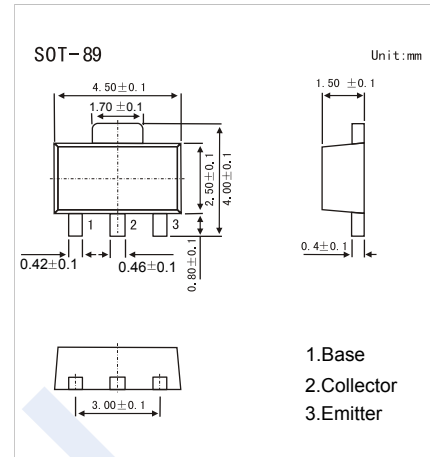


PNP Transistors

2SA1890

■ Features

- Low collector to emitter saturation voltage $V_{CE(sat)}$.
- High collector to emitter voltage V_{CEO} .
- Complementary to 2SC5026.

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-80	V
Collector - Emitter Voltage	V_{CEO}	-80	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-1	A
Collector Current - Pulse	I_{CP}	-1.5	
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100 \mu\text{A}$, $I_E = 0$	-80			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1 \text{ mA}$, $I_B = 0$	-80			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu\text{A}$, $I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -40 \text{ V}$, $I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4 \text{ V}$, $I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500 \text{ mA}$, $I_B = -50 \text{ mA}$		-0.2	-0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500 \text{ mA}$, $I_B = -50 \text{ mA}$		-0.85	-1.2	
DC current gain	h_{FE}	$V_{CE} = -2 \text{ V}$, $I_C = -100 \text{ mA}$	120		340	
		$V_{CE} = -2 \text{ V}$, $I_C = -500 \text{ mA}$	60			
Collector output capacitance	C_{ob}	$V_{CB} = -10 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$		15	30	pF
Transition frequency	f_T	$V_{CE} = -10 \text{ V}$, $I_E = 50 \text{ mA}$, $f = 200 \text{ MHz}$		120		MHz

■ Classification of $h_{FE}(1)$

Type	2SA1890-Q	2SA1890-R
Range	120-240	170-340
Marking	1ZQ	1ZR

PNP Transistors

2SA1890

■ Typical Characteristics

