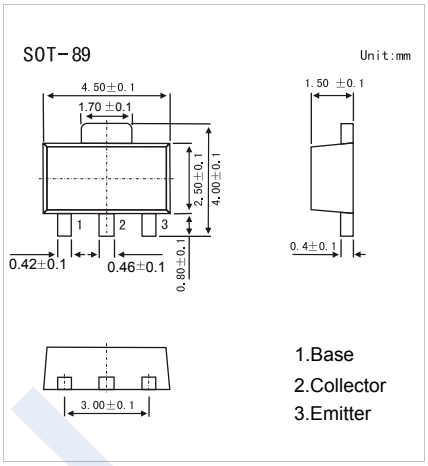
PNP Transistors

2SA1890



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

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
Colletor Current - Pulse	I_{CP}	-1.5	
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

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

■ Classification of $h_{fe(1)}$

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

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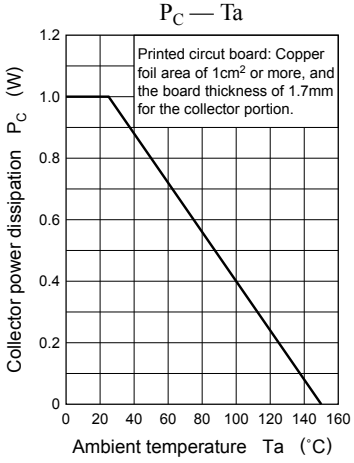
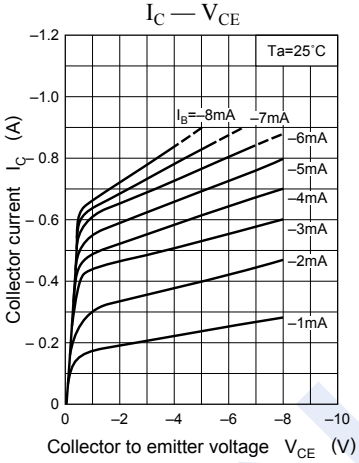
■ Typical Characterisitics

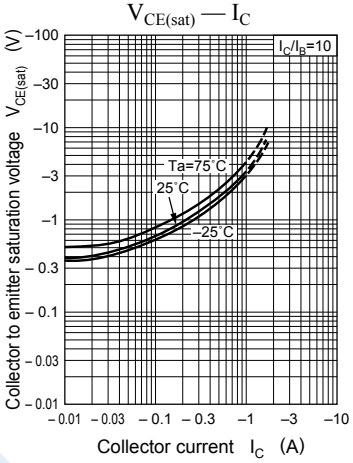
P_C — Ta



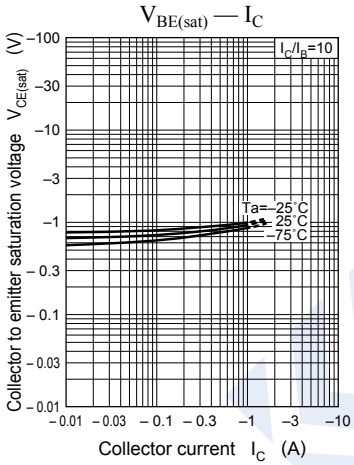
I_C — V_{CE}



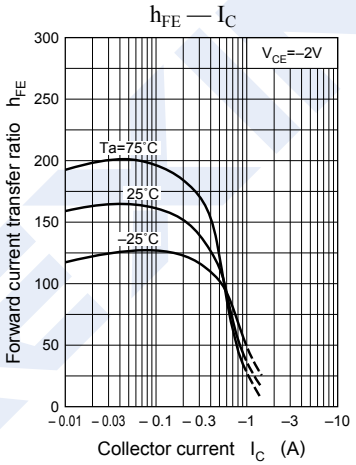
$V_{CE(sat)}$ — I_C



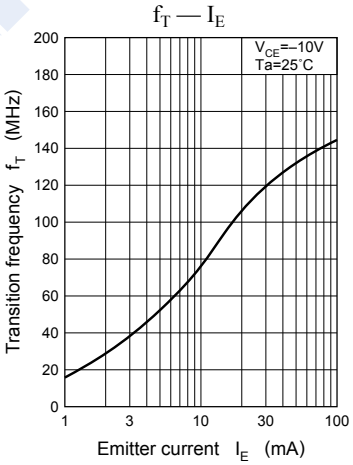
$V_{BE(sat)}$ — I_C



h_{FE} — I_C



f_T — I_E



C_{ob} — V_{CB}