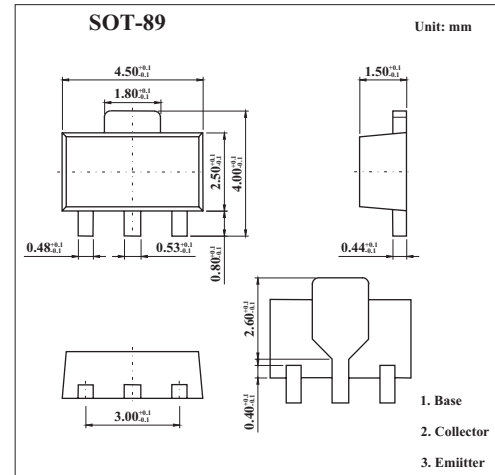


Silicon PNP Epitaxial Planar

2SA1890

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- High collector-emitter voltage (Base open) V_{CEO}

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-50	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-50	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	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 voltage	V_{CBO}	$I_C = -10 \mu\text{A}, I_E = 0$	-80			V
Collector-emitter voltage	V_{CEO}	$I_C = -1 \text{ mA}, I_B = 0$	-80			V
Emitter-base voltage	V_{EBO}	$I_E = -10 \mu\text{A}, I_C = 0$	-5			V
Collector-base cutoff current	I_{CBO}	$V_{CB} = -40 \text{ V}, I_E = 0$			-0.1	μA
Forward current transfer ratio	h_{FE}	$V_{CE} = -2 \text{ V}, I_C = -100 \text{ mA}$	120		340	
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	V
Transition frequency	f_T	$V_{CB} = -10 \text{ V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		15	30	pF

■ h_{FE} Classification

Marking	1Z	
Rank	R	S
h_{FE}	120~240	170~340