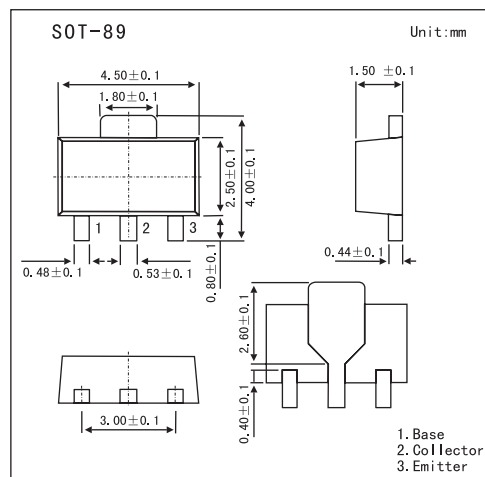


Silicon PNP Epitaxia

2SA1948

■ Features

- High f_T $f_T=200\text{MHz}$ typ, low C_{ob} $C_{ob}=3.5\text{pF}$ typ
- Small package for mounting
- High voltage $V_{CEO}=120\text{V}$
- High collector dissipation $P_C=500\text{mW}$

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-120	V
Collector-emitter voltage	V_{CEO}	-120	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-100	mA
Collector dissipation	P_C	500	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 breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\text{ }\mu\text{A}$, $I_E = 0$	-120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{ mA}$, $R_{BE} = \infty$	-120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\text{ }\mu\text{A}$, $I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -100\text{ V}$, $I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\text{ V}$, $I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -10\text{ V}$, $I_C = -10\text{ mA}$	150		800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50\text{ mA}$, $I_B = -2.5\text{ mA}$		-0.17	-0.6	V
Gain band width product	f_T	$V_{CE} = -10\text{ V}$, $I_E = 10\text{ mA}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$		3.5		pF

■ h_{FE} Classification

Marking	ACE	ACF	ACG
Rank	E	F	G
h_{FE}	150~300	250~500	400~800