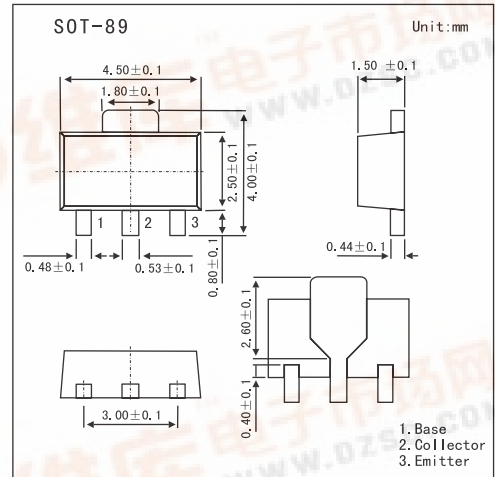


SMD Type Transistors

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 $V_{CE0}=120\text{V}$
- 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	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10 \mu\text{A}, I_E = 0$	-120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1 \text{mA}, R_{BE} = \infty$	-120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10 \mu\text{A}, I_C = 0$	-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

hFE Classification

Marking	ACE	ACF	ACG
Rank	E	F	G
	150~300	250~500	400~800

