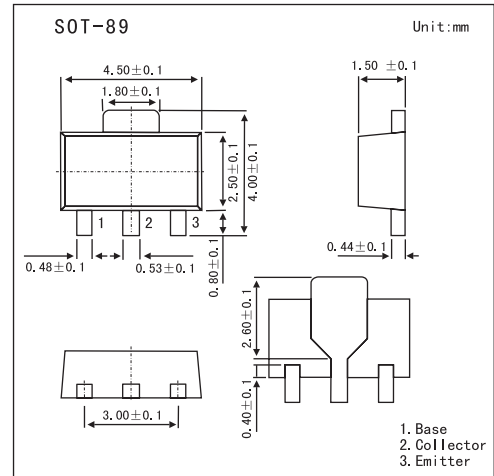


2SA1946

Features

- Low collector saturation voltage
 $V_{CE(sat)} = -0.25V$ typ
- High f_T : $f_T = 180MHz$ typ
- Excellent linearity of DC forward current gain
- High collector current $I_{CM} = -1A$
- Small package for mounting



Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-25	V
Emitter-base voltage	V_{EBO}	-4	V
Collector-emitter voltage	V_{CEO}	-20	V
Peak collector current	I_{CM}	-1	A
Collector current	I_C	-700	mA
Collector dissipation ($T_a = 25^\circ C$)	P_C	500	mW
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-4			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -100\mu A, R_{BE} = \infty$	-20			V
Collector cutoff current	I_{CBO}	$V_{CB} = -25V, I_E = 0$			-1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -2V, I_C = 0$			-1	μA
DC current gain	h_{FE}	$V_{CE} = -4V, I_C = -100mA$	150		800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -25mA$		-0.25	-0.5	V
Gain bandwidth product	f_T	$V_{CE} = -6V, I_E = -10mA$		180		MHz

h_{FE} Classification

Marking	AAE	AAF	AAG
h_{FE}	150~300	250~500	400~800