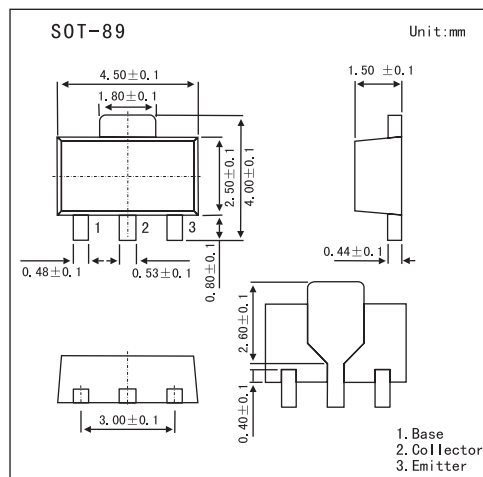


2SA1766

■ Features

- Adoption of FBET, MBIT processes.
- High DC current gain ($h_{FE}=500$ to 1200).
- Large current capacity.
- Low collector-to-emitter saturation voltage.
- High V_{EBO} .



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-30	V
Collector-emitter voltage	V_{CEO}	-25	V
Emitter-base voltage	V_{EBO}	-15	V
Collector current	I_C	-300	mA
Collector current (pulse)	I_{CP}	-500	mA
Base current	I_B	-60	mA
Collector dissipation	P_C	1.3	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 cutoff current	I_{CBO}	$V_{CB} = -20\text{V}, I_E = 0$			-0.1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -10\text{V}, I_C = 0$			-0.1	μA
DC current Gain	h_{FE}	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$	500	800	1200	
Gain bandwidth product	f_T	$V_{CE} = -10\text{V}, I_C = -10\text{mA}$		100		MHz
Common base output capacitance	C_{ob}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		12		pF
Collector-to-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -200\text{mA}, I_B = -4\text{mA}$		-0.12	-0.5	V
Base-to-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -200\text{mA}, I_B = -4\text{mA}$		-0.77	-1.1	V
Collector-to-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-30			V
Collector-to-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	-25			V
Emitter-to-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-15			V

■ Marking

Marking	AL
---------	----