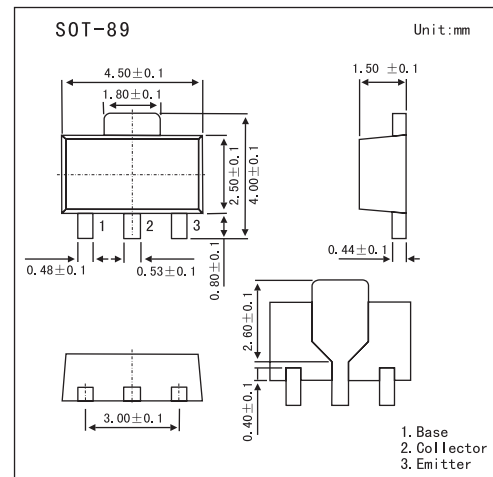


PNP Epitaxial Planar Silicon

2SA1898

■ Features

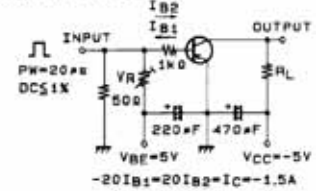
- Adoption of FBET and MBIT processes.
- Large current capacity.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	-15	V
Collector-emitter voltage	V_{CE0}	-15	V
Emitter-base voltage	V_{EB0}	-5	V
Collector current	I_C	-3	A
Collector current (pulse)	I_{CP}	-5	A
Base current	I_B	-600	mA
Collector dissipation	P_C	1.3	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

2SA1898

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Collector cutoff current	I_{CBO}	$V_{CB} = -12\text{V}$, $I_E = 0$			-1	nA	
Emitter cutoff current	I_{EBO}	$V_{EB} = -3\text{V}$, $I_C = 0$			-1	nA	
DC current Gain	h_{FE}	$V_{CE} = -2\text{V}$, $I_C = -0.5\text{A}$	100		280		
Gain bandwidth product	f_T	$V_{CE} = -2\text{V}$, $I_C = -0.3\text{A}$		300		MHz	
Common base output capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $f = 1\text{MHz}$		28		pF	
Collector-to-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.5\text{A}$, $I_B = -75\text{mA}$		-0.25	-0.5	mV	
Base-to-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1.5\text{A}$, $I_B = -75\text{mA}$		-0.95	-1.2	V	
Collector-to-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}$, $I_E = 0$	-15			V	
Collector-to-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}$, $R_{BE} = \infty$	-15			V	
Emitter-to-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}$, $I_C = 0$	-5			V	
Turn-on time	t_{on}	Switching Time Test Circuit 		30	60	ns	
Storage time	t_{stg}				100	200	ns
Turn-off time	t_{off}				120	220	ns

■ h_{FE} Classification

Marking	AN	
	R	S
h_{FE}	100~200	140~280