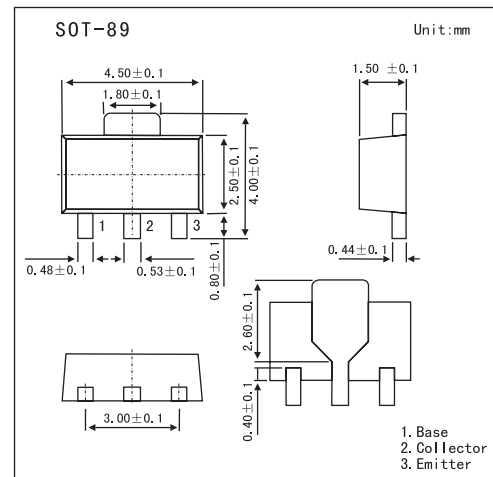


PNP Epitaxial Planar Silicon

2SA1898

■ Features

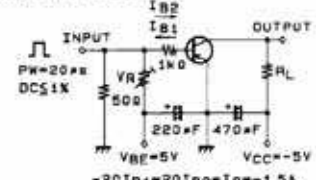
- Adoption of FBET and MBIT processes.
- Large current capacity.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	-15	V
Collector-emitter voltage	V_{CEO}	-15	V
Emitter-base voltage	V_{EBO}	-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	$^\circ\text{C}$

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Collector cutoff current	I _{CBO}	V _{CB} = -12V, I _E = 0			-1	nA	
Emitter cutoff current	I _{EBO}	V _{EB} = -3V, I _C = 0			-1	nA	
DC current Gain	h _{FE}	V _{CE} = -2V, I _C = -0.5A	100		280		
Gain bandwidth product	f _T	V _{CE} = -2V, I _C = -0.3A		300		MHz	
Common base output capacitance	C _{ob}	V _{CB} = -10V, f = 1MHz		28		pF	
Collector-to-emitter saturation voltage	V _{CE(sat)}	I _C = -1.5A, I _B = -75mA		-0.25	-0.5	mV	
Base-to-emitter saturation voltage	V _{BE(sat)}	I _C = -1.5A, I _B = -75mA		-0.95	-1.2	V	
Collector-to-base breakdown voltage	V _{(BR)CBO}	I _C = -10μA, I _E = 0	-15			V	
Collector-to-emitter breakdown voltage	V _{(BR)CEO}	I _C = -1mA, R _{BE} = ∞	-15			V	
Emitter-to-base breakdown voltage	V _{(BR)EBO}	I _E = -10μA, 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

■ hFE Classification

Marking	AN	
	R	S
hFE	100~200	140~280