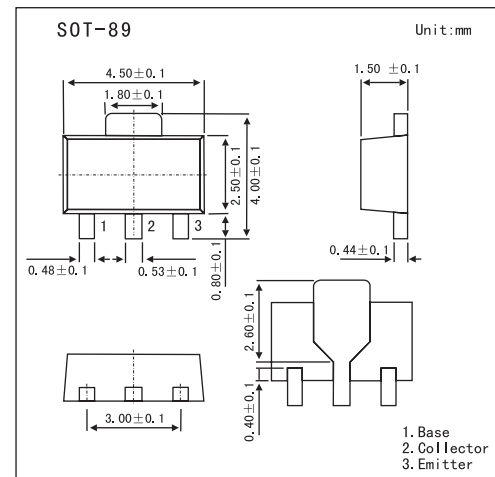


PNP Epitaxial Planar Silicon

2SA1730

■ Features

- Adoption of FBET , MBIT processes.
- Large current capacity.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Small-sized package.

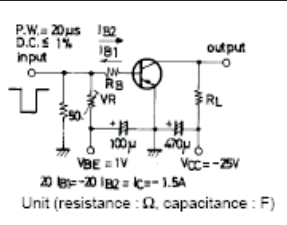
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-50	V
Collector-emitter voltage	V_{CEO}	-40	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-3	A
Collector current (pulse)	I_{CP}	-6	A
Collector dissipation *	P_C	1.5	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* Mounted on ceramic board (250mm² X 0.8mm).

2SA1730

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit	
Collector cutoff current	IcBO	V _{CB} = -40V , I _E = 0			-1	μA	
Emitter cutoff current	I _{EBO}	V _{EB} = -3V , I _C = 0			-1	μA	
DC current Gain	h _{FE}	V _{CE} = -2V , I _C = -500mA	70		280		
Gain bandwidth product	f _T	V _{CE} = -2V , I _C = -500mA		300		MHz	
Common base output capacitance	C _{ob}	V _{CB} = -10V , f = 1MHz		35		pF	
Collector-to-emitter saturation voltage	V _{CE(sat)}	I _C = -1.5A , I _B = -75mA		-0.3	-0.8	V	
Base-to-emitter saturation voltage	V _{BE(sat)}	I _C = -1.5A , I _B = -75mA		-0.95	-1.3	V	
Collector-to-base breakdown voltage	V _{(BR)CBO}	I _C = -10μA , I _E = 0	-50			V	
Collector-to-emitter breakdown voltage	V _{(BR)CEO}	I _C = -1mA , R _{BE} = ∞	-40			V	
Emitter-to-base breakdown voltage	V _{(BR)EBO}	I _E = -10μA , I _C = 0	-5			V	
Turn-on time	t _{on}	 <p>P.W. = 20 μs D.C. = 1%</p> <p>Unit (resistance : Ω, capacitance : F)</p>		50	100	ns	
Storage time	t _{stg}				120	220	ns
Turn-off time	t _{off}				150	300	ns

■ hFE Classification

Marking	AH		
	Q	R	S
hFE	70~140	100~200	140~280