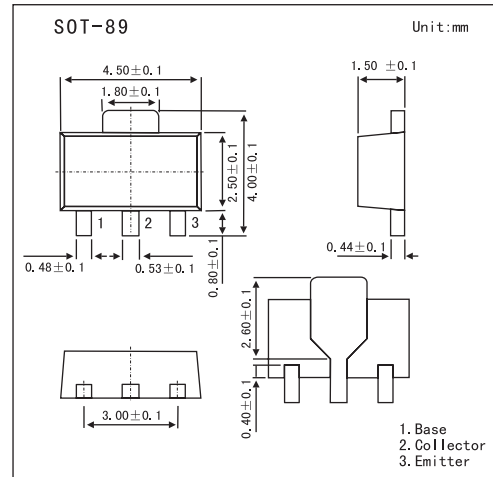


**2SA1730**

■ **Features**

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



■ **Absolute Maximum Ratings Ta = 25°C**

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CBO</sub>	-50	V
Collector-emitter voltage	V <sub>CEO</sub>	-40	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current	I <sub>C</sub>	-3	A
Collector current (pulse)	I <sub>CP</sub>	-6	A
Collector dissipation *	P <sub>C</sub>	1.5	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

\* Mounted on ceramic board (250mm<sup>2</sup> X 0.8mm).

## 2SA1730

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit	
Collector cutoff current	IcBO	V <sub>CB</sub> = -40V , I <sub>E</sub> = 0			-1	μA	
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = -3V , I <sub>C</sub> = 0			-1	μA	
DC current Gain	h <sub>FE</sub>	V <sub>CE</sub> = -2V , I <sub>C</sub> = -500mA	70		280		
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = -2V , I <sub>C</sub> = -500mA		300		MHz	
Common base output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V , f = 1MHz		35		pF	
Collector-to-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -1.5A , I <sub>B</sub> = -75mA		-0.3	-0.8	V	
Base-to-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -1.5A , I <sub>B</sub> = -75mA		-0.95	-1.3	V	
Collector-to-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -10μA , I <sub>E</sub> = 0	-50			V	
Collector-to-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA , R <sub>BE</sub> = ∞	-40			V	
Emitter-to-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10μA , I <sub>C</sub> = 0	-5			V	
Turn-on time	t <sub>on</sub>	<p>P.W = 20μs D.C. = 1% V<sub>BE</sub> = 1V I<sub>B1</sub> = -20 I<sub>B2</sub> = I<sub>C</sub> = -1.5A Unit (resistance : Ω, capacitance : F)</p>		50	100	ns	
Storage time	t <sub>stg</sub>				120	220	ns
Turn-off time	t <sub>off</sub>				150	300	ns

■ hFE Classification

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