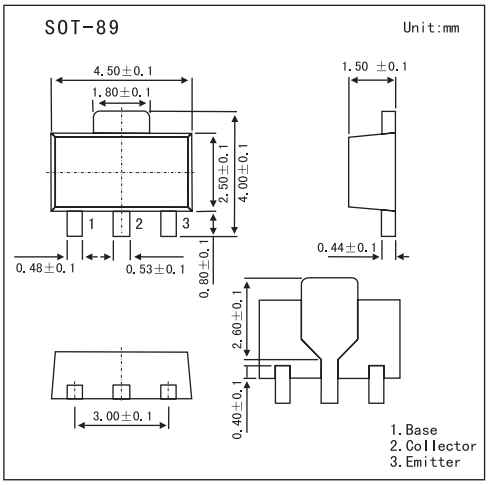
PNP Silicon Epitaxial Transistor

2SB1114



■ Features

- World standard miniature package.
- High DC current gain hFE=135 to 600.
- Low $V_{CE(sat)}$: $V_{CE(sat)}$=-0.3V at 1.5A

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-20	V
Collector to emitter voltage	V_{CEO}	-20	V
Emitter to base voltage	V_{EBO}	-6	V
Collector current	I_C	-2	A
Collector current (pulse) *	I_C	-3	A
Total power dissipation	P_T	2	W
Junction temperature	T_j	150	℃
Storage temperature range	T_{stg}	-55 to +150	℃

* Pulsed: PW ⩽ 10 ms, duty cycle ⩽ 50%

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 16 V, I_E = 0			-100	nA
Emitter cutoff current	I_{EBO}	V_{EB} = -6.0 V, I_C = 0			-100	nA
DC current gain *	h_{FE}	V_{CE} = -2.0 V, I_C = -100 mA	135	350	600	
		V_{CE} = -2.0 V, I_C = -2.0mA	40			
Collector saturation voltage *	$V_{CE(sat)}$	I_C = -1.5A, I_B = -50 mA		-0.3	-0.5	V
Base saturation voltage *	$V_{BE(sat)}$	I_C = -1.5A, I_B = -50 mA		-1.05	-1.2	V
Base-emitter voltage *	V_{BE}	V_{CE} = -6.0 V, I_C = -100 mA	-0.65	-0.68	-0.75	V
Gain bandwidth product	f_T	V_{CE} = -10 V, I_E = 50 mA		180		MHz
Output capacitance	C_{ob}	V_{CB} = -10 V, I_E = 0 , f = 1.0 MHz		60		pF

* Pulsed: PW ⩽ 350 μs, duty cycle ⩽ 2%

■ h_{FE} Classification

Marking	ZM	ZL	ZK
h_{FE}	135～270	200～400	300～600