

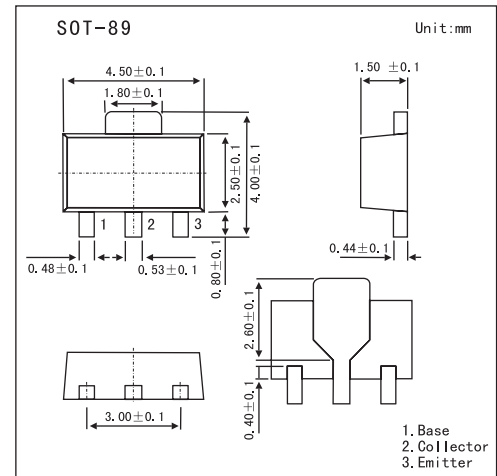
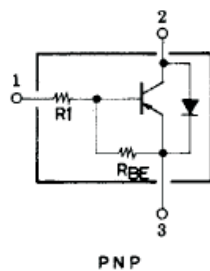
PNP/NPN Epitaxial Planar Silicon Transistors

2SB1394

■ Features

- Contains input resistance (R1), base-to-emitter resistance (RBE).
- Contains diode between collector and emitter.
- Low saturation voltage.
- Large current capacity.
- Small-sized package making it easy to provide highdensity, small-sized hybrid ICs.

■ Electrical Connection

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-40	V
Collector-emitter voltage	V_{CEO}	-30	V
Emitter-base voltage	V_{EBO}	-6	V
Collector current	I_C	-3	A
Collector current (pulse)	I_{CP}	-5	A
Collector dissipation	P_C *	1.5	W
Jumction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* Mounted on ceramic board (250mm²X0.8mm)

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	ICBO	V _{CB} = -30V , I _E = 0			-1	μA
DC current Gain	h _{FE}	V _{CE} = -2V , I _C = -0.5A	70			
		V _{CE} = -2V , I _C = -2A	50			
Gain bandwidth product	f _T	V _{CE} = -2V , I _C = -0.5A		100		MHz
Output capacitance	C _{ob}	V _{CB} = -10V , f = 1MHz		55		pF
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -1A , I _B = -50mA		-0.18	-0.4	V
Base-emitter on state voltage	V _{BE(ON)}	V _{CE} = -2V , I _C = -1A	-0.7	-1.5	-4	V
Collector-to-base breakdown voltage	V _{(BR)CBO}	I _C = -10μA , I _E = 0	-40			V
Collector-to-emitter breakdown voltage	V _{(BR)CEO1}	I _C = -10μA , R _{BE} = ∞	-40			V
Collector-to-emitter breakdown voltage	V _{(BR)CEO2}	I _C = -10mA , R _{BE} = ∞	-30			
Diode forward voltage	V _F	I _F =0.5A			-1.5	V
Base-emitter resistance	R _{BE}			0.8		KΩ
Base resistance	R ₁		60	90	120	Ω

■ Marking

Marking	BN
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