

Power Transistor

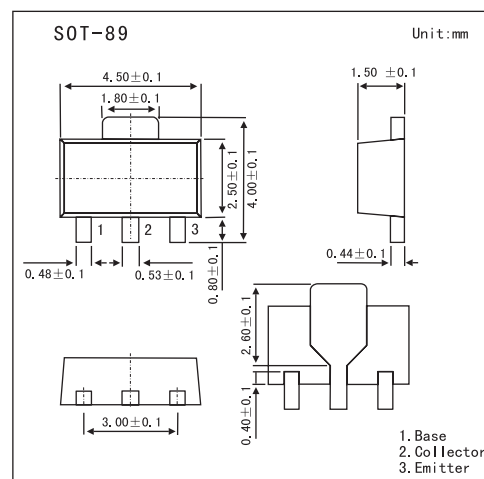
2SB1308

■ Features

- Low saturation voltage, typically

$V_{CE(sat)} = -0.45V$ (Max.) at $I_C/I_B = -1.5A / -0.15A$.

- Excellent DC current gain characteristics.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-30	V
Collector-emitter voltage	V_{CEO}	-20	V
Emitter-base voltage	V_{EBO}	-6	V
Collector current	I_C	-3	A
Collector current(Pulse)	$I_{CP} *$	-5	A
Collector power dissipation	P_C	0.5	W
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

* Single pulse, $P_w=10ms$

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	$I_C=-50\mu A$	-30			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C=-1mA$	-20			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E=-50\mu A$	-6			V
Collector cutoff current	I_{CBO}	$V_{CB}=-20V$			-0.5	μA
Emitter cutoff current	I_{EBO}	$V_{EB}=-5V$			-0.5	μA
Collector-emitter saturation voltage	h_{FE}	$V_{CE}=-2V, I_C=-0.5A$	82		390	
DC current transfer ratio	$V_{CE(sat)}$	$I_C=-1.5A, I_B=-0.15A$			-0.45	V
Transition frequency	C_{ob}	$V_{CE}=-6V, I_E=50mA, f=100MHz$		120		MHz
Output capacitance	f_T	$V_{CB}=-20V, I_E=0A, f=1MHz$		60		pF

■ h_{FE} Classification

Marking	BF		
Rank	P	Q	R
h_{FE}	82~180	120~270	180~390