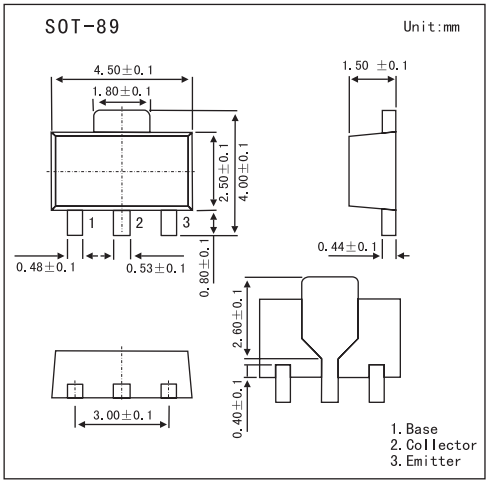
Power Transistor

2SB1443



■ Features

- Low saturation voltage. $V_{CE\ (sat)}$ = -0.35V (Max.) at I_C / I_B = -1A / -50mA.
- Excellent DC current gain characteristics.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-50	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-6	V
Collector current	I_C	-2	A
	I_{CP} *1	-5	A
Collector dissipation	P_C*2	1	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

*1 Single pulse Pw=10ms.

*2 Printed circuit board 1.7mm thick, collector plating 1cm^2 or larger.

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltae	V_{CBO}	I_C= -50μA	-50			V
Collector-emitter breakdown voltage	V_{CEO}	I_C= -1mA	-50			V
Emitter-base breakdown voltage	V_{EBO}	I_E= -50μA	-6			V
Collector cutoff current	I_{CBO}	V_{CB}= -50V			-0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB}= -5V			-0.1	μA
DC current gain	h_{FE}	V_{CE}=-2V, I_C= -0.5A	120		270	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C/I_B= -1A/ -50mA		-0.15	-0.35	V
Output capacitance	C_{ob}	V_{CB}= -10V, I_E=0A, f=1MHz		36		pF
Transition frequency	f_T	V_{CE}= -2V, I_E=0.5A, f=100MHz		200		MHz