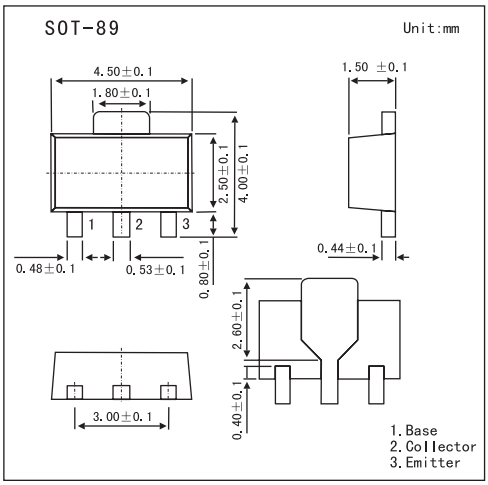
TY Semicondutor®

Product specification

2SB800



■ Features

- World standard miniature package:SOT-89
- High collector to emitter voltage:V_{CEO}＞-80V

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-80	V
Collector to emitter voltage	V_{CEO}	-80	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-300	mA
Collector current(Pulse) *	I_C	-500	mA
Total power dissipation	P_T	2.0	W
Junction temperature	T_j	150	℃
Storage temperature range	T_{stg}	-55 to +150	℃

* PW≤10ms,duty cycle≤50%.

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = -80 V, I_E = 0			-100	nA
Emitter cutoff current	I_{EBO}	V_{EB} = -5.0 V, I_C = 0			-100	nA
DC current gain *	h_{FE}	V_{CE} = -1.0 V, I_C = -50 mA	90	200	400	
		V_{CE} = -2.0 V, I_C = -300 mA	30	80		
Collector saturation voltage *	$V_{CE(sat)}$	I_C = -300mA, I_B = -30mA		-0.3	-0.6	V
Base saturation voltage *	$V_{BE(sat)}$	I_C = -300mA, I_B = -30mA		-0.9	-1.2	V
Base-emitter voltage *	V_{BE}	V_{CE} = -6.0 V, I_C = -10 mA	-600	-660	-700	mV
Gain bandwidth product	f_T	V_{CE} = -6.0 V, I_E = 10 mA		100		MHz
Output capacitance	C_{ob}	V_{CB} = -6.0 V, I_E = 0 , f = 1.0 MHz		13		pF

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

■ h_{FE} Classification

Marking	FM	FL	FK
h_{FE}	90～180	135～270	200～400