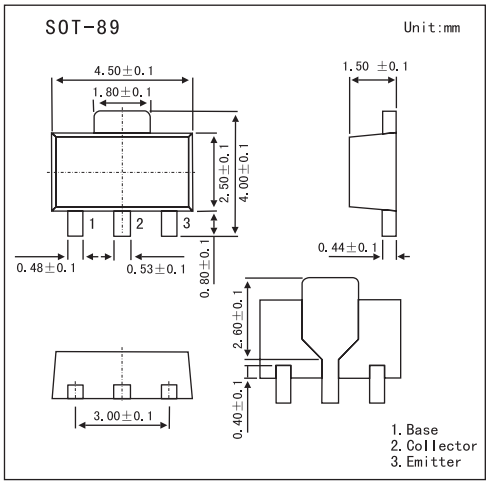
TY Semicondutor®

Product specification

2SB805



■ Features

● High collector to emitter voltage: V_{CEO}＞-100V.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-100	V
Collector-emitter voltage	V_{CEO}	-100	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-0.7	A
Collector current (pulse) *1	$I_{C(pu)}$	-1.2	A
Collector power dissipation	P_c	2	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

*1. PW≤10ms,duty cycle≤50%

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = -100V, I_E=0			-100	nA
Emitter cutoff current	I_{EBO}	V_{EB} = -5V, I_C=0			-100	nA
DC current gain *	h_{FE}	V_{CE} =-1V , I_C = -100mA	90	200	400	
		V_{CE} =-1V , I_C = -5.0mA	45	200		
Collector-emitter saturation voltage *	$V_{CE(sat)}$	I_C = -500mA , I_B = -50mA		-0.4	-0.6	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	I_C = -500mA , I_B = -50mA		-0.9	-1.5	V
Base-emitter voltage *	V_{BE}	V_{CE} =-10V , I_C = -10mA	-550	-620	-650	mV
Output capacitance	C_{ob}	V_{CB} = -10V , I_E = 0 , f = 1.0MHz		14		pF
Transition frequency	f_T	V_{CE} = -10V , I_E = 10mA		75		MHz

* PW≤350μs,duty cycle≤2%

■ h_{FE} Classification

Marking	KM	KL	KK
hFE	90～180	135～270	200～400