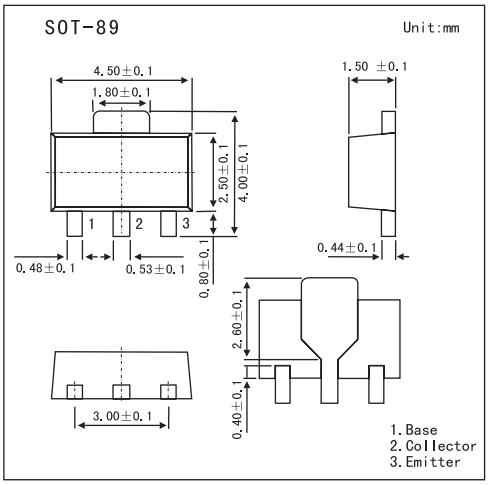
TY Semicondutor®

Product specification

2SB1120



■ Features

- Low collector-to-emitter saturation voltage : $V_{CE(sat)}$max=-0.45V.
- Large current capacity : I_C=-2.5A, I_{CP}=-5A.
- Very small size making it easy to provide highdensity, small-sized hybrid IC's.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-20	V
Collector-emitter voltage	V_{CEO}	-10	V
Emitter-base voltage	V_{EBO}	-7	V
Collector current	I_C	-2.5	A
Collector current (pulse)	I_{CP}	-5	A
Collector dissipation	P_C	500	mW
Jumction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = -16V , I_E = 0			-100	nA
Emitter cutoff current	I_{EBO}	V_{CB} = -4V , I_E = 0			-100	nA
DC current Gain	h_{FE}	V_{CE} = -2V , I_C = -500mA	100		560	
		V_{CE}=-2V，I_C=-3A	70			
Gain bandwidth product	f_T	V_{CE} = -10V , I_C = -50mA		250		MHz
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = -1.5A , I_B = -0.15A		-0.25	-0.45	V
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = -10μA , I_E = 0	-20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = -1mA , R_{BE} = ∞	-10			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = -10μA , I_C = 0	-7			V
Output capacitance	C_{ob}	V_{CB} = -10V , f = 1MHz		70		pF

■ h_{FE} Classification

Marking	BC		
Rank	E	F	G
hFE	100～200	160～320	280～560