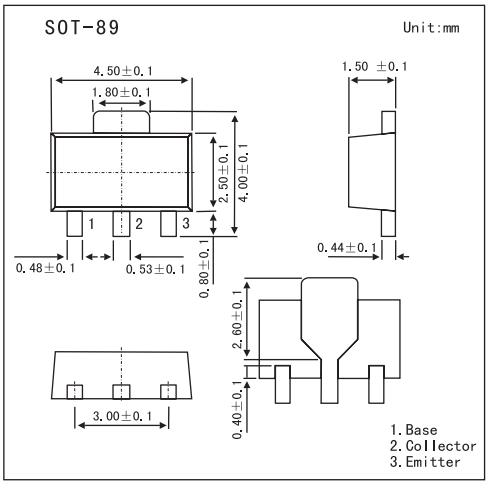
TY Semicondutor®

Product specification

2SB1118



■ Features

- Low collector-to-emitter saturation voltage.
- Very small size making it easy to provide highdensity,

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-20	V
Collector-emitter voltage	V_{CEO}	-15	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-0.7	A
Collector current (pulse)	I_{CP}	-1.5	A
Collector dissipation	P_C	500	mW
Jumction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

2SB1118

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = -15V , I_E = 0			-0.1	μA
Emitter cutoff current	I_{EBO}	V_{CB} = -4V , I_E = 0			-0.1	μA
DC current Gain	h_{FE}	V_{CE} = -2V , I_C = -50mA	140		560	
		V_{CE} = -2V , I_C = -500mA	60			
Gain bandwidth product	f_T	V_{CE} = -10V , I_C = -50mA		250		MHz
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = -5mA , I_B = -0.5mA		-15	-35	V
		I_C = -100mA , I_B = -10mA		-60	-120	
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = -100mA , I_B = -10mA		-0.8	-1.2	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} = ∞	-15			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = -10μA , I_C = 0	-5			V
Output capacitance	C_{ob}	V_{CB} = -10V , f = 1MHz		13		pF

■ h_{FE} Classification

Marking	BA		
Rank	S	T	U
hFE	140～280	200～400	280～560