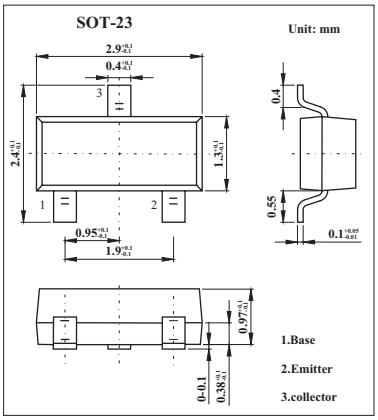
TY Semicondutor®

Product specification

2SB970



■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$.
- Mini type package,allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-15	V
Collector-emitter voltage	V_{CEO}	-10	V
Emitter-base voltage	V_{EBO}	-7	V
Collector current	I_C	-.5	A
Peak collector current	I_{CP}	-1	A
Collector power dissipation	P_C	200	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base voltage	V_{CBO}	I_C = -10 μA, I_E = 0	-15			V
Collector-emitter voltage	V_{CEO}	I_C = -1 mA, I_B = 0	-10			V
Emitter-base voltage	V_{EBO}	I_E = -10 μA, I_C = 0	-7			V
Collector-base cutoff current	I_{CBO}	V_{CB} = -10 V, I_E = 0			-100	nA
Forward current transfer ratio	h_{FE}	V_{CE} = -2 V, I_C = -0.5A	130		350	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = -0.4 A, I_B = -8 mA		-0.16	-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = -0.4 A, I_B = -8 mA		-0.8	-1.2	V
Transition frequency	f_T	V_{CB} = -10 V, I_E = 50 mA , f = 200 MHz		130		MHz
Collector output capacitance	C_{ob}	V_{CB} = -10V , I_E = 0 , f = 1.0MHz		22		pF

* Pulse measurement.

■ h_{FE} Classification

Marking	1R	
Rank	R	S
h_{FE}	130～220	180～350