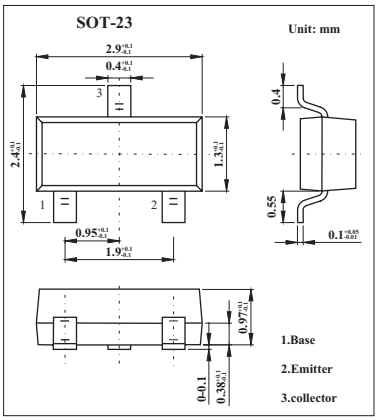
TY Semicondutor®

Product specification

2SA1022



■ Features

- High transition frequency fT.
- 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 (Emitter open)	V_{CBO}	-30	V
Collector-emitter voltage (Base open)	V_{CEO}	-20	V
Emitter-base voltage (Collector open)	V_{EBO}	-5	V
Collector current	I_C	-30	mA
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 cutoff current	I_{CBO}	V_{CB} = -10 V, I_E = 0			-0.1	μA
	I_{CEO}	V_{CE} = -20 V, I_B = 0			-100	μA
Emitter cutoff current	I_{EBO}	V_{EB} = -5.0 V, I_C = 0			-10	μA
Forward current transfer ratio	h_{FE}	V_{CE} = -10 V, I_C = -1 mA	70		220	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = -10 mA, I_B = -1 mA		-0.1		V
Base to emitter voltage	V_{BE}	V_{CE} =-10 V, I_C = -1 mA		-0.7		V
Transition frequency	f_T	V_{CB} = -10 V, I_E = 1 mA f = 200 MHz	150	300		MHz
Noise figure	NF	V_{CB} = -10 V, I_E = 1 mA f = 5 MHz		2.8		dB
Reverse transfer impedance	Z_{rb}	V_{CB} = -10 V, I_E = 1 mA f = 2 MHz		22		Ω
Common emitter reverse transfer capacitance	C_{re}	V_{CE} = -10 V, Ic = -1 mA f = 10.7 MHz		1.2		pF

■ h_{FE} Classification

Marking	EB	EC
h_{FE}	70～140	110～220