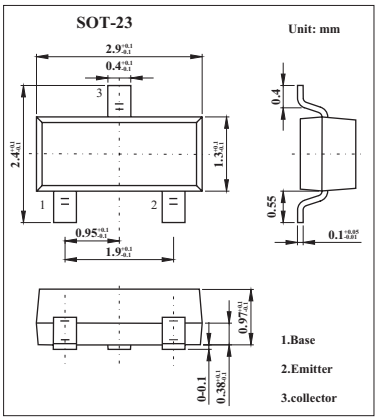
TY Semicondutor®

Product specification

2SC4104



■ Features

- High fT.
- Small reverse transfer capacitance.
- Adoption of FBET process.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	70	V
Collector-emitter voltage	V_{CEO}	60	V
Emitter-base voltage	V_{EBO}	4	V
Collector current	I_C	50	mA
Collector current (pulse)	I_{cp}	100	mA
Collector 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} = 40V, I_E=0			0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = 3V, I_C=0			1.0	μA
DC current gain	h_{FE}	V_{CE} = 10V , I_C = 10mA	60		270	
Gain bandwidth product	f_T	V_{CE} = 10V , I_C = 10mA	350	700		MHz
Base-collector time constant	r_{bb},C_c	V_{CE} = 10V , I_C = 10mA		8		ps
Output capacitance	C_{ob}	V_{CB} = 10V , f = 1.0MHz		1.3		pF
Reverse transfer capacitance	C_{re}	V_{CB} = 10V , f = 1.0MHz		1.0		pF
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 20mA , I_B = 2mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = 20mA , I_B = 2mA			1.0	V
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 10μA , I_E = 0	70			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 1mA , R_{BE} = ∞	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = 10μA , I_C = 0	4			V

■ hFE Classification

Marking	YY		
Rank	3	4	5
hFE	60～120	90～180	135～270