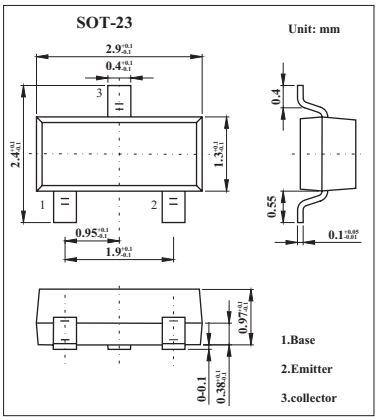
TY Semicondutor®

Product specification

2SC3739



■ Features

● High gain bandwidth product: f_T=200MHz.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	40	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	500	mA
Total power dissipation at 25℃ ambient temperature	P_T	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			100	nA
Emitter cutoff current	I_{EBO}	V_{EB} = 4V, I_C=0			100	nA
DC current gain *	h_{FE}	V_{CE} = 1V , I_C = 150mA	75	150	300	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	I_C = 500mA , I_B = 50mA		0.25	0.75	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	I_C = 500mA , I_B = 50mA		1.0	1.2	V
Gain bandwidth product	f_T	V_{CE} = 10V , I_E = -20mA	200	400		MHz
Output capacitance	C_{ob}	V_{CB} = 10V , I_E = 0 , f = 1.0MHz		3.5	8.0	pF
Turn-on time	t_{on}	V_{CC} = 30V ,			35	ns
Storage time	t_{stg}	I_C = 150mA ,			225	ns
Turn-off time	t_{off}	I_{B1} = -I_{B2} = 15mA			275	ns

*. PW≤350μs,duty cycle≤2%

■ h_{FE} Classification

Marking	B12	B13	B14
hFE	75～150	100～200	150～300