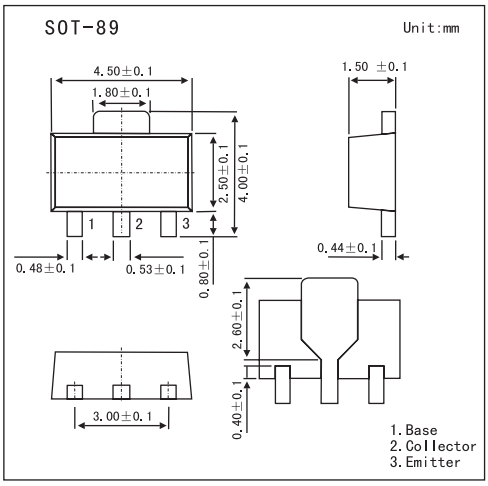
TY Semicondutor®

Product specification

2SC4705



■ Features

- High DC current gain (h_{FE}=800 to 3200).
- Low collector-to-emitter saturation voltage : $V_{CE(sat)} \leqslant 0.5V$ max.
- High V_{EBO} : $V_{EBO} \geqslant 15V$.
- Small size making it easy to provide high-density, hybrid ICs.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	15	V
Collector current	I_C	200	mA
Collector current (pulse)	I_{CP}	300	mA
Base current	I_B	40	mA
Collector dissipation,mounted on ceramic board($250mm^2$X0.8mm)	P_C	1.3	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

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■ 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} = 10V, I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE} = 5V , I_C = 100mA	800	1500	3200	
Gain bandwidth product	f_T	V_{CE} = 10V , I_C = 10mA		250		MHz
Output capacitance	C_{ob}	V_{CB} = 10V , f = 1.0MHz		4		pF
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 100 mA , I_B = 2 mA		0.12	0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = 100 mA , I_B = 2 mA		0.85	1.2	V
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 10μA , I_E = 0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 1mA , R_{BE} = ∞	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = 10μA , I_C = 0	15			V

■ Marking

Marking	CP