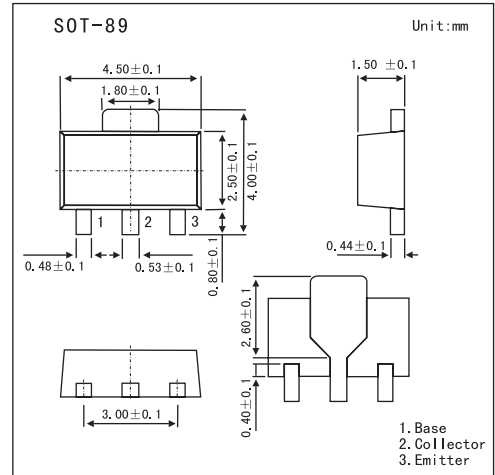


# 2SC4705

### ■ Features

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



### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

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 <sup>2</sup> X0.8mm)	$P_C$	1.3	W
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$

## 2SC4705

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	ICBO	V <sub>CB</sub> = 40V, I <sub>E</sub> =0			0.1	μA
Emitter cutoff current	IEBO	V <sub>EB</sub> = 10V, I <sub>C</sub> =0			0.1	μA
DC current gain	hFE	V <sub>CE</sub> = 5V, I <sub>C</sub> = 100mA	800	1500	3200	
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 10mA		250		MHz
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, f = 1.0MHz		4		pF
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 100 mA, I <sub>B</sub> = 2 mA		0.12	0.5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 100 mA, I <sub>B</sub> = 2 mA		0.85	1.2	V
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = 10μA, I <sub>E</sub> = 0	60			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 1mA, R <sub>BE</sub> = ∞	50			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = 10μA, I <sub>C</sub> = 0	15			V

### ■ Marking

Marking	CP
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