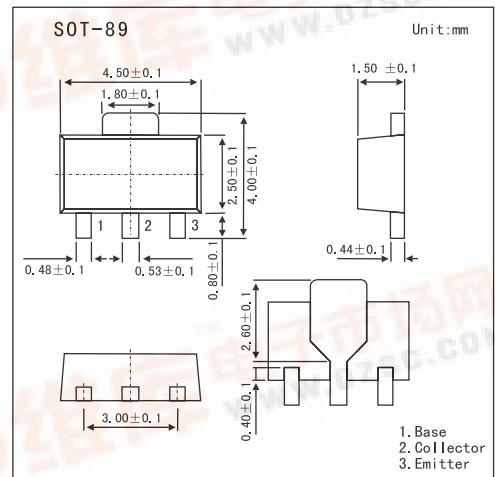


SMD Type Transistors

NPN Epitaxial Planar Silicon Transistor
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 ² X0.8mm)	P_C	1.3	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

2SC4705

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	ICBO	V _{CB} = 40V, I _E =0			0.1	μA
Emitter cutoff current	IEBO	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
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