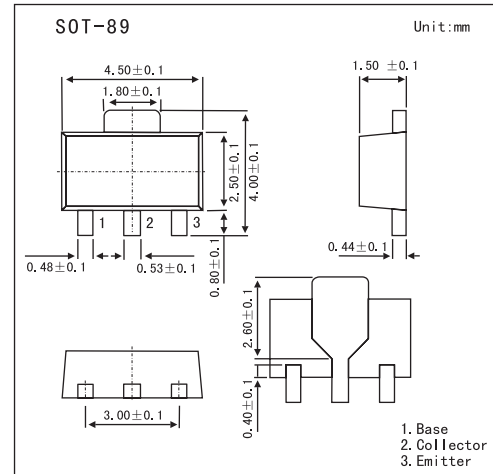


## Medium power transistor

## 2SA1900

## ■ Features

- Low saturation voltage, typically  $V_{CE(sat)} = \approx 0.15V$  at  $I_C / I_B = \approx 500mA / \approx 50mA$
- $P_c = 2W$  (on  $40 \times 40 \times 0.7mm$  ceramic board)

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

Parameter	Symbol	Rating	Unit
Collector-emitter Voltage	$V_{CEO}$	-60	V
Collector-base Voltage	$V_{CBO}$	-50	V
Emitter-base Voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-1	A
		-2	A(Pulse) *1
Collector power dissipation	$P_c$	0.5	W
		2	W *2
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$

\*1 Single pulse  $P_w = 20ms$ , Duty = 1/2

\*2 When mounted on a  $40 \times 40 \times 0.7mm$  ceramic board.

■ Electrical Characteristics  $T_a = 25^\circ C$ 

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$BV_{CBO}$	$I_C = -50 \mu A$	-60			V
Collector-emitter breakdown voltage	$BV_{CEO}$	$I_C = -1mA$	-50			V
Emitter-base breakdown voltage	$BV_{EBO}$	$I_E = -50 \mu A$	-5			V
Collector cutoff current	$I_{CBO}$	$V_{CB} = -40V$			-0.1	$\mu A$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -4V$			-0.1	$\mu A$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C / I_B = -500mA / -50mA$			-0.4	V
DC current transfer ratio	$h_{FE}$	$V_{CE} / I_C = -3V / -0.5A$	120		270	
Transition frequency	$f_T$	$V_{CE} = -5V, I_E = 50mA, f = 100MHz$		150		MHz
Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0A, f = 1MHz$		20		pF

## ■ Marking

Marking	ALQ
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