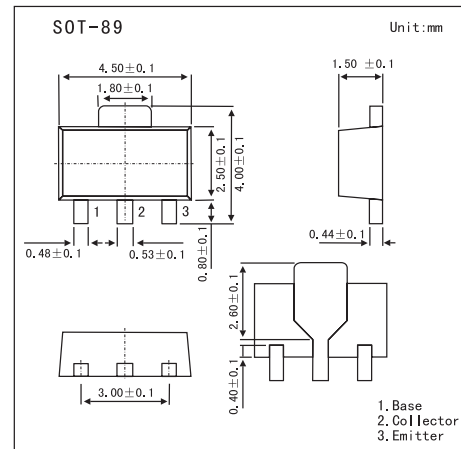


## High-Voltage Switching Transistor

## 2SA1759

## ■ Features

- High breakdown voltage
- Low saturation voltage
- High switching speed

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

Parameter	Symbol	Rating	Unit
Collector-emitter Voltage	$V_{CEO}$	-400	V
Collector-base Voltage	$V_{CBO}$	-400	V
Emitter-base Voltage	$V_{EBO}$	-7	V
Collector current	$I_C$	-0.1	A
Collector current (pulse) *1	$I_{CP}$	-0.2	A
Collector power dissipation	$P_C$	0.5	W
		2 *2	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\*  $P_w=100\text{ms}$

\*2 When mounted on a 40X40X0.7 mm ceramic board

## 2SA1759

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-emitter breakdown voltage	BV <sub>CEO</sub>	I <sub>C</sub> = -1mA	-400			V
Collector-base breakdown voltae	BV <sub>CBO</sub>	I <sub>C</sub> = -50 μ A	-400			V
Emitter-base breakdown voltage	BV <sub>EBO</sub>	I <sub>E</sub> = -50 μ A	-7			V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = -400V			-10	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = -6V			-10	μA
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -20mA , I <sub>B</sub> = -2mA		-0.2	-0.5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -20mA , I <sub>B</sub> = -2mA			-1.2	V
DC current transfer ratio	h <sub>FE</sub>	V <sub>CE</sub> = -10V , I <sub>C</sub> = -10mA	82		180	
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -10V , I <sub>E</sub> = 10mA , f = 5MHz		200		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V , I <sub>E</sub> = 0A , f = 1MHz		36		pF
Turn-on time	t <sub>on</sub>	I <sub>C</sub> = -100mA , R <sub>L</sub> = 1.5KΩ		0.7		μs
Storage time	t <sub>stg</sub>	I <sub>B1</sub> = -I <sub>B2</sub> = -10mA		1.8		μs
Fall time	t <sub>off</sub>	V <sub>CC</sub> =-150V		1		μs

## ■ Marking

Marking	AHP
---------	-----