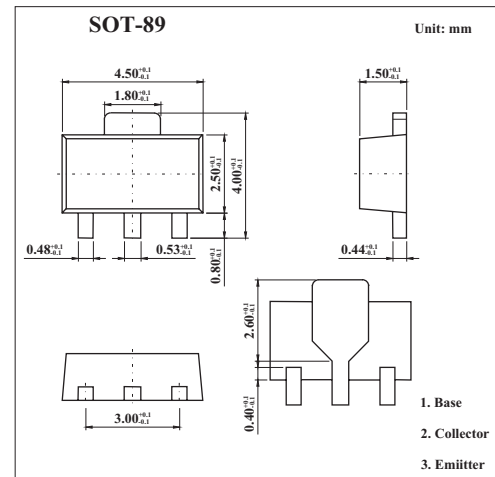


## Power High Performance Transistor

## FCX589

## ■ Features

- PNP silicon planar medium.



## ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	-50	V
Collector-emitter voltage	V <sub>CE0</sub>	-30	V
Emitter-base voltage	V <sub>EB0</sub>	-5	V
Peak pulse current	I <sub>C</sub>	-1	A
Continuous collector current	I <sub>CM</sub>	-2	A
Base current	I <sub>B</sub>	-200	mA
Power dissipation	P <sub>tot</sub>	1	W
Operating and storage temperature range	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C

## FCX589

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Breakdown Voltages	V <sub>(BR)CBO</sub>	I <sub>C</sub> =-100μA	-50			V
Breakdown Voltages *	V <sub>(BR)CEO</sub>	I <sub>C</sub> =-10mA	-30			V
Breakdown Voltages	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-100μA	-5			V
Collector-base cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-30V			-100	nA
Collector -Emitter Cut-Off Current	I <sub>CES</sub>	V <sub>CE</sub> =-30V			-100	nA
Emitter Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-4V			-100	nA
Collector-emitter saturation voltage *	V <sub>CE(sat)</sub>	I <sub>C</sub> =-1A, I <sub>B</sub> =-100mA I <sub>C</sub> =-2A, I <sub>B</sub> =-200mA			-0.35 -0.65	V
Base-emitter saturation voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> =-1A, I <sub>B</sub> =-100mA			-1.2	V
Base-Emitter Turn-on Voltage *	V <sub>BE(on)</sub>	I <sub>C</sub> =-1A, V <sub>CE</sub> =-2V			-1.1	V
Static Forward Current Transfer Ratio	h <sub>FE</sub>	I <sub>C</sub> =-1mA, V <sub>CE</sub> =-2V*	100			
		I <sub>C</sub> =-500mA, V <sub>CE</sub> =-2V*	100		300	
		I <sub>C</sub> =-1A, V <sub>CE</sub> =-2V*	80			
		I <sub>C</sub> =-2A, V <sub>CE</sub> =-2V*	40			
Transitional frequency	f <sub>T</sub>	I <sub>C</sub> =-100mA, V <sub>CE</sub> =-5V f=100MHz	100			MHz
Output capacitance	C <sub>obo</sub>	V <sub>CB</sub> =-10V, f=1MHz			15	pF

\* Pulse test: t<sub>p</sub> = 300 μs; d ≤ 0.02.

## ■ Marking

Marking	P89
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