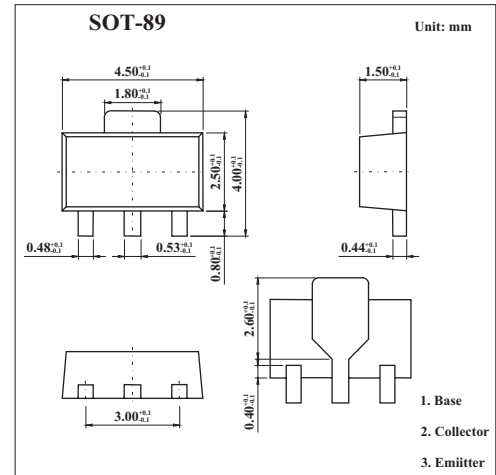


## Medium Power Transistor

## FCX591A

## ■ Features

- PNP silicon planar.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-40	V
Collector-emitter voltage	$V_{CEO}$	-40	V
Emitter-base voltage	$V_{EB0}$	-5	V
Peak pulse current	$I_C$	-1	A
Continuous collector current	$I_{CM}$	-2	A
Base current	$I_B$	-200	mA
Power dissipation	$P_{tot}$	1	W
Operating and storage temperature range	$T_j, T_{stg}$	-65 to +150	$^\circ\text{C}$

## FCX591A

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Breakdown Voltages	V(BR)CBO	I <sub>C</sub> =-100μA	-40			V
Breakdown Voltages *	V(BR)CEO	I <sub>C</sub> =-10mA	-40			V
Breakdown Voltages	V(BR)EBO	I <sub>E</sub> =-100μA	-5			V
Collector 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> =-100mA, I <sub>B</sub> =-1mA I <sub>C</sub> =-500mA, I <sub>B</sub> =-20mA I <sub>C</sub> =-1A, I <sub>B</sub> =-100mA			-0.2 -0.35 -0.5	V
Base-emitter saturation voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> =-1A, I <sub>B</sub> =-50mA			-1.1	V
Base-Emitter Turn-on Voltage *	V <sub>BE(on)</sub>	I <sub>C</sub> =-1A, V <sub>CE</sub> =-5V			-1.0	V
Static Forward Current Transfer Ratio	h <sub>FE</sub>	I <sub>C</sub> =-1mA,	300			
		I <sub>C</sub> =-100mA*,	300		800	
		I <sub>C</sub> =-500mA*, V <sub>CE</sub> =-5V	250			
		I <sub>C</sub> =-1A*,	160			
		I <sub>C</sub> =-2A*,	30			
Transitional frequency	f <sub>T</sub>	I <sub>C</sub> =-50mA, V <sub>CE</sub> =-10V, f=100MHz	150			MHz
Output capacitance	C <sub>obo</sub>	V <sub>CB</sub> =-10V, f=1MHz			10	pF

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

## ■ Marking

Marking	P2
---------	----