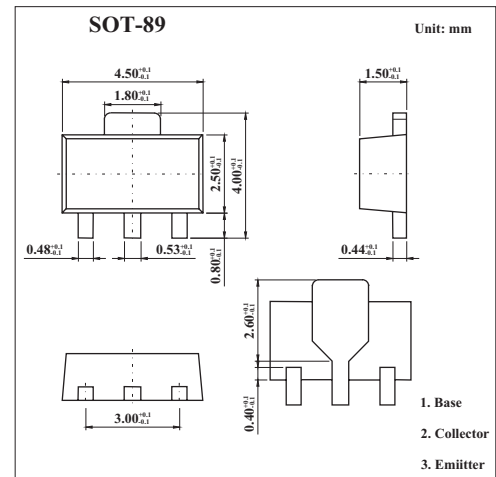


## Medium Power Transistor

## FCX491

## ■ Features

- 60 Volt  $V_{CE0}$ .
- 1 Amp continuous current.
- $P_{tot}$ = 1 Watt.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	80	V
Collector-emitter voltage	$V_{CEO}$	60	V
Emitter-base voltage	$V_{EBO}$	5	V
Peak pulse current	$I_c$	1	A
Continuous collector current	$I_{CM}$	2	A
Power dissipation	$P_{tot}$	1	W
Operating and storage temperature range	$T_j, T_{stg}$	-65 to +150	$^\circ\text{C}$

## FCX491

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Breakdown Voltages	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100μA	80			V
Breakdown Voltages	V <sub>CEO(sus)</sub>	I <sub>C</sub> =10mA	60			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> =60V			100	nA
	I <sub>CES</sub>	V <sub>CE</sub> =60V			100	nA
Emitter-base 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> =500mA, I <sub>B</sub> =50mA I <sub>C</sub> =1A, I <sub>B</sub> =100mA			0.25 0.5	V
Base-emitter saturation voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> =1A, I <sub>B</sub> =100mA			1.1	V
Base-emitter 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, V <sub>CE</sub> =5V	100			
		I <sub>C</sub> =500mA, V <sub>CE</sub> =5V*	100		300	
		I <sub>C</sub> =1A, V <sub>CE</sub> =5V*	80			
		I <sub>C</sub> =2A, V <sub>CE</sub> =5V*	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	N1
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