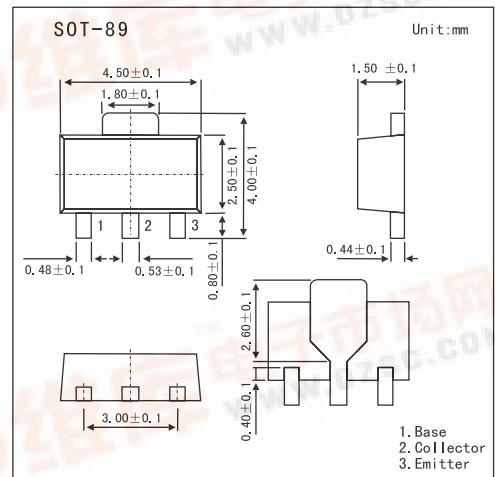


SMD Type Transistors

NPN Silicon Power Switching Transistor
FCX690B

■ Features

- 2W power dissipation.
- 6A peak pulse current.
- Gain of 400 @Ic=1Amp.
- Very low saturation voltage.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	45	V
Collector-emitter voltage	V _{CE0}	45	V
Emitter-base voltage	V _{EB0}	5	V
Continuous collector current	I _{CM}	6	A
Peak pulse current	I _c	2	A
Power dissipation	P _{tot}	1	W
Operating and storage temperature range	T _j , T _{stg}	-55 to +150	°C

FCX690B

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	IC=100μA	45			V
Collector-emitter breakdown voltage *	V(BR)CEO	IC=10mA	45			V
Emitter-base breakdown voltage	V(BR)EBO	IE=100μA	5			V
Collector Cut-Off Current	ICBO	VCE=9V			0.1	μA
Emitter Cut-Off Current	IEBO	VEB=4V			0.1	μA
Collector-emitter saturation voltage *	VCE(sat)	IC=0.1A, IB=0.5mA IC=1A, IB=5mA			80 300	mV
Base-emitter saturation voltage *	VBE(sat)	IC=1A, IB=10mA			1.1	V
Base-emitter ON voltage *	VBE(on)	IC=1A, VCE=2V			1.0	V
Static Forward Current Transfer Ratio*	hFE	IC=100mA, VCE=2V IC=1A, VCE=2V IC=2A, VCE=2V	500 400 150			
Transitional frequency	fT	IC=50mA, VCE=5V, f=50MHz	150			MHz
Input capacitance	Cibo	VEB=0.5V, f=1MHz		200		pF
Output capacitance	Cobo	VCE=10V, f=1MHz		16		pF
Turn-on time	t(on)	IC=500mA, VCC=10V		33		ns
Turn-off time	t(off)	IB1=IB2=50mA		1300		ns

* Pulse test: tp = 300 μs; d ≤ 0.02.

■ Marking

Marking	690
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