

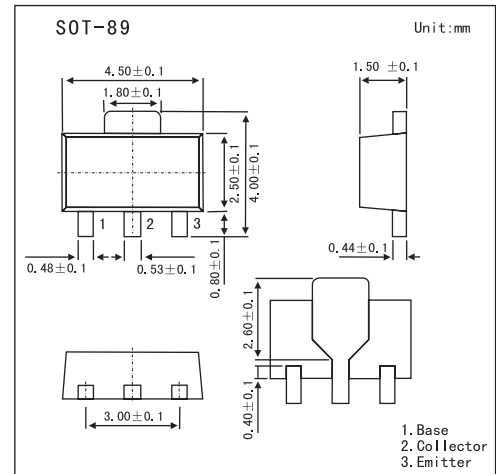
PNP Silicon Power Switching Transistor

FCX1151A

■ Features

- 2W power dissipation.
- 5A peak pulse current.
- Excellent HFE characteristics up to 5 Amps.
- Extremely low saturation voltage E.g. 60mv Typ.
- Extremely low equivalent on-resistance.

$R_{CE(sat)}$ 66m Ω at 3A.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-45	V
Collector-emitter voltage	V_{CEO}	-40	V
Emitter-base voltage	V_{EBO}	-5	V
Continuous collector current	I_{CM}	-5	A
Peak pulse current *3	I_C	-3	A
Base current	I_B	-500	mA
Power dissipation	P_{tot}	1 *1	W
		2 *2	W
Operating and storage temperature range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

*1 recommended P_{tot} calculated using FR4 measuring 15X15X0.6mm

*2 Maximum power dissipation is calculated assuming that the device is mounted on FR4 substrate measuring 40X40X0.6mm

*3 Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$

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■ 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	-40			V
Emitter-base breakdown voltage	V(BR)EBO	IE=-100μA	-5			V
Collector cut-off current	ICBO	VCE=-36V		-0.3	-100	nA
Collector Emitter Cut-Off Current	ICES	VCE=-32V		-0.3	-100	nA
Emitter Cut-Off Current	IEBO	VEB=-4V		-0.3	-100	nA
Collector-emitter saturation voltage *	VCE(sat)	IC=-0.1A, IB=-1mA IC=-0.5A, IB=-5mA IC=-1A, IB=-20mA IC=-3A, IB=-250mA		-60 -120 -140 -200	-90 -180 -220 -300	mV
Base-emitter saturation voltage *	VBE(sat)	IC=-3A, IB=-250mA		-985	-1050	mV
Base-emitter ON voltage *	VBE(on)	IC=-3A, VCE=-2V		-850	-950	mV
Static Forward Current Transfer Ratio *	hFE	IC=-10mA, VCE=-2V IC=-0.5A, VCE=-2V IC=-2A, VCE=-2V IC=-3A, VCE=-2V IC=-5A, VCE=-2V	270 250 180 100	450 400 300 190 45	800	
Transitional frequency	fT	IC=-50mA, VCE=-10V, f=50MHz		145		MHz
Output capacitance	Cobo	VCE=-10V, f=1MHz		40		pF
Turn-on time	t(on)	IC=-2A, VCC=-30V		170		ns
Turn-off time	t(off)	IB1=IB2=-20mA		460		ns

* Pulse test: tp = 300 μs; d ≤ 0.02.

■ Marking

Marking	151
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