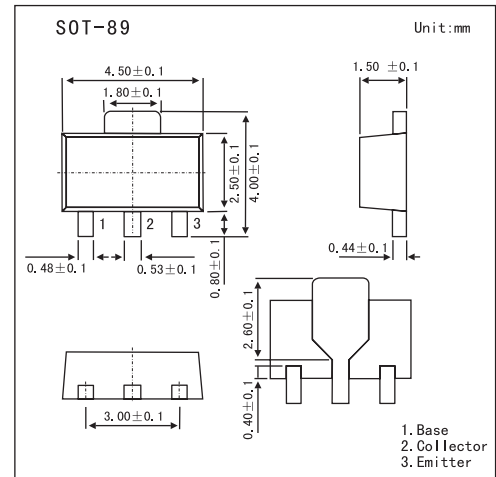


PNP Silicon Power Switching Transistor

FCX1147A

■ Features

- 2W power dissipation.
- 20A peak pulse current.
- Excellent HFE characteristics up to 20 Amps.
- Extremely low saturation voltage E.g. 25mv Typ.
- Extremely low equivalent on-resistance.
RCE(sat) 53mΩ at 3A.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	-15	V
Collector-emitter voltage	V _{CEO}	-12	V
Emitter-base voltage	V _{EB0}	-5	V
Continuous collector current	I _{CM}	-20	A
Peak pulse current	I _c	-3	A
Base current	I _B	-500	mA
Power dissipation	P _{tot}	1	W
Operating and storage temperature range	T _j , T _{stg}	-55 to +150	°C

FCX1147A

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	IC=-100μA	-15			V
Collector-emitter breakdown voltage *	V(BR)CEO	IC=-10mA	-12			V
Emitter-base breakdown voltage	V(BR)EBO	IE=-100μA	-5			V
Collector Cut-Off Current	ICBO	VCB=-12V		-0.3	10	nA
Collector Emitter Cut-Off Current	ICES	VCE=-10V		-0.3	10	nA
Emitter Cut-Off Current	IEBO	VEB=-4V		-0.3	10	nA
Collector-emitter saturation voltage *	VCE(sat)	IC=-0.1A, IB=-1mA IC=-0.5A, IB=-2.5mA IC=-1A, IB=-6mA IC=-2A, IB=-20mA IC=-3A, IB=-30mA IC=-5A, IB=-50mA		-25 -70 -90 -115 -160 -250	-50 -110 -130 -170 -250 -400	mV
Base-emitter saturation voltage *	VBE(sat)	IC=-3A, IB=-30mA		-820	-1000	mV
Base-emitter ON voltage *	VBE(on)	IC=-3A, VCE=-2V		-770	-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 IC=-10A, VCE=-2V IC=-20A, VCE=-2V	270 250 200 200 150 90	450 400 340 300 245 145 50	- 850	
Transitional frequency	fT	IC=-50mA, VCE=-10V, f=50MHz		115		MHz
Output capacitance	Cobo	VCB=-10V, f=1MHz		80		pF
Turn-on time	t(on)	IC=-4A, VCC=-10V		150		ns
Turn-off time	t(off)	IB1=IB2=-40mA		220		ns

* Pulse test: tp = 300 μs; d ≤ 0.02.

■ Marking

Marking	147
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