

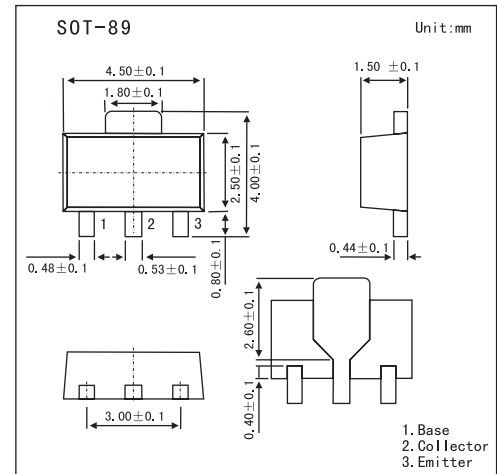
PNP Silicon Power Switching Transistor

FCX717

■ Features

- 2W power dissipation.
- 10A peak pulse current.
- Excellent HFE characteristics up to 10 Amps.
- Extremely low saturation voltage E.g. 12mv Typ.
- Extremely low equivalent on-resistance.

$R_{CE(sat)}$ 77mΩ at 3A.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-12	V
Collector-emitter voltage	V_{CEO}	-12	V
Emitter-base voltage	V_{EBO}	-5	V
Continuous collector current	I_{CM}	-10	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	$^\circ\text{C}$

FCX717

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdwn voltage	V(BR)CBO	IC=-100μA	-12	-35		V
Collector-emitter breakdown voltage *	V(BR)CEO	IC=-10mA	-12	-25		V
Emitter-base breakdown voltage	V(BR)EBO	IE=-100μA	-5	-8.5		V
Collector cut-off current	ICBO	VCB=-10V			-100	nA
Collector Emitter Cut-Off Current	ICES	VCE=-10V			-100	nA
Emitter Cut-Off Current	IEBO	VEB=-4V			-100	nA
Collector-emitter saturation voltage *	VCE(sat)	IC=-0.1A, IB=-10mA IC=-1A, IB=-10mA IC=-3A, IB=-50mA		-12 -110 -230	-20 -150 -320	mV
Base-emitter saturation voltage *	VBE(sat)	IC=-3A, IB=-50mA		-0.92	-1.05	V
Base-emitter ON voltage *	VBE(on)	IC=-3A, VCE=-2V		-0.85	-1.0	V
Static Forward Current Transfer Ratio *	hFE	IC=-10mA, VCE=-2V IC=-0.1A, VCE=-2V IC=-3A, VCE=-2V IC=-8A, VCE=-2V IC=-10A, VCE=-2V	300 300 160 60 45	475 450 240 100 70		
Transitional frequency	fT	IC=-50mA, VCE=-10V, f=100MHz	80	110		MHz
Output capacitance	Cobo	VCB=-10V, f=1MHz		21	30	pF
Turn-on time	t(on)	IC=-2A, VCC=-6V		70		ns
Turn-off time	t(off)	IB1=IB2=50mA		130		ns

* Pulse test: tp = 300 μs; d ≤ 0.02.

■ Marking

Marking	717
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