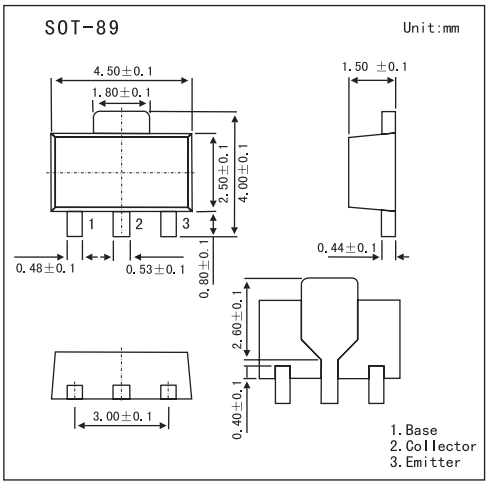
PNP Silicon Power Switching Transistor

FCX789A



■ Features

- 2W power dissipation.
- 8A peak pulse current.
- Excellent HFE characteristics up to 10 Amps.
- Extremely low saturation voltage E.g. 10mv Typ.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-25	V
Collector-emitter voltage	V_{CEO}	-25	V
Emitter-base voltage	V_{EBO}	-5	V
Continuous collector current	I_{CM}	-8	A
Peak pulse current	I_C	-3	A
Power dissipation	P_{tot}	1	W
Operating and storage temperature range	T_j,T_{stg}	-55 to +150	℃

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA	-25			V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	I_C=-10mA	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-10V			0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-4V			0.1	μA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	I_C=-1A, I_B=-10mA I_C=-2A, I_B=-20mA I_C=-3A, I_B=-100mA			-190 -400 -320	mV
Base-emitter saturation voltage *	$V_{BE(sat)}$	I_C=-1A, I_B=-10mA			-0.9	V
Base-emitter ON voltage *	$V_{BE(on)}$	I_C=-1A, V_{CE}=-2V		-0.8		V
Static Forward Current Transfer Ratio *	h_{FE}	I_C=-10mA,V_{CE}=-2V I_C=-1A,V_{CE}=-2V I_C=-2A,V_{CE}=-2V I_C=-6A,V_{CE}=-2V	300 230 180 75	800		
Transitional frequency	f_T	I_C=-50mA, V_{CE}=-5V, f=50MHz	100			MHz
Input capacitance	C_{ibo}	V_{EB}=-0.5V, f=1MHz		225		pF
Output capacitance	C_{obo}	V_{CB}=-10V, f=1MHz		25		pF
Turn-on time	$t_{(on)}$	I_C=-500mA, V_{CC}=-10V		35		ns
Turn-off time	$t_{(off)}$	I_{B1}=I_{B2}=-50mA		400		ns

* Pulse test: tp = 300 μs; d ⩽ 0.02.

■ Marking

Marking	789