

**SOT89 PNP SILICON POWER
(SWITCHING) TRANSISTOR**
ISSUE 1 -JULY 2000

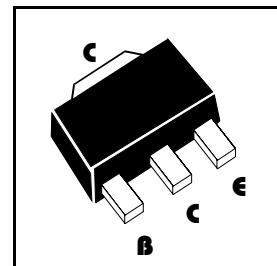
FCX790A

FEATURES

- * **2W POWER DISSIPATION**
- * 6A Peak Pulse Current
- * Excellent H_{FE} Characteristics
- * Low Saturation Voltages

Partmarking Detail -

790A



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current **	I_{CM}	-6	A
Continuous Collector Current	I_C	-2	A
Power Dissipation at $T_{amb}=25^\circ C$	P_{tot}	1 † 2 ‡	W W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	°C

† recommended P_{tot} calculated using FR4 measuring 15x15x0.6mm

‡ Maximum power dissipation is calculated assuming that the device is mounted on FR4 substrate measuring 40x40x0.6mm and using comparable measurement methods adopted by other suppliers.

**Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤ 2%

Spice parameter data is available upon request for these devices

Refer to the handling instructions when soldering surface mount components.

FCX790A

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ C$)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-50			V	$I_C=-100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-40			V	$I_C=-10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E=-100\mu A$
Collector Cut-Off Current	I_{CBO}			-0.1	μA	$V_{CB}=-30V$
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	$V_{EB}=-4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-250 -350 -450	mV mV mV	$I_C=-0.5A, I_B=-5mA^*$ $I_C=-1A, I_B=-10mA^*$ $I_C=-2A, I_B=-50mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-0.9	V	$I_C=-1A, I_B=-10mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.8		V	$I_C=-1A, V_{CE}=-2V^*$
Static Forward Current Transfer Ratio	h_{FE}	300 250 200 150		800		$I_C=-10mA, V_{CE}=-2V$ $I_C=-500mA, V_{CE}=-2V^*$ $I_C=-1A, V_{CE}=-2V^*$ $I_C=-2A, V_{CE}=-2V^*$
Transition Frequency	f_T	100			MHz	$I_C=-50mA, V_{CE}=-5V$ $f=50MHz$
Input Capacitance	C_{ibo}		225		pF	$V_{EB}=-0.5V, f=1MHz$
Output Capacitance	C_{obo}		24		pF	$V_{CB}=-10V, f=1MHz$
Switching Times	t_{on} t_{off}		35 600		ns ns	$I_C=-500mA, I_{B1}=-50mA$ $I_{B2}=-50mA, V_{CC}=-10V$

*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%

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TYPICAL CHARACTERISTICS

