

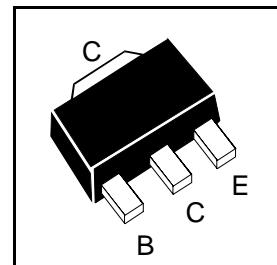
SOT89 PNP SILICON PLANAR MEDIUM POWER HIGH PERFORMANCE TRANSISTOR

ISSUE 3 - OCTOBER 1995



FCX589

PARTMARKING DETAIL – P89



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-2	A
Continuous Collector Current	I_C	-1	A
Base Current	I_B	-200	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	1	W
Operating and Storage Temperature Range	$T_j \cdot T_{stg}$	-65 to +150	°C

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

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Breakdown Voltages	$V_{(BR)CBO}$	-50		V	$I_C=-100\mu\text{A}$
	$V_{(BR)CEO}$	-30		V	$I_C=-10\text{mA}^*$
	$V_{(BR)EBO}$	-5		V	$I_E=-100\mu\text{A}$
Collector Cut-Off Current	I_{CBO}		-100	nA	$V_{CB}=-30\text{V}$
Collector -Emitter Cut-Off Current	I_{CES}		-100	nA	$V_{CES}=-30\text{V}$
Emitter Cut-Off Current	I_{EBO}		-100	nA	$V_{EB}=-4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(\text{sat})}$	-0.35 -0.65		V	$I_C=-1\text{A}, I_B=-100\text{mA}^*$ $I_C=-2\text{A}, I_B=-200\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(\text{sat})}$		-1.2	V	$I_C=-1\text{A}, I_B=-100\text{mA}^*$
Base-Emitter Turn-on Voltage	$V_{BE(\text{on})}$		-1.1	V	$I_C=-1\text{A}, V_{CE}=-2\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	100 100 80 40	300		$I_C=-1\text{mA}, V_{CE}=-2\text{V}^*$ $I_C=-500\text{mA}, V_{CE}=-2\text{V}^*$ $I_C=-1\text{A}, V_{CE}=-2\text{V}^*$ $I_C=-2\text{A}, V_{CE}=-2\text{V}^*$
Transition Frequency	f_T	100		MHz	$I_C=-100\text{mA}, V_{CE}=-5\text{V}$ $f=100\text{MHz}$
Output Capacitance	C_{obo}		15	pF	$V_{CB}=-10\text{V}, f=1\text{MHz}$

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

For typical Characteristics graphs see FMMT549 datasheet