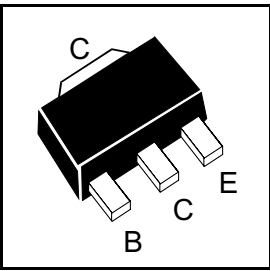


SOT89 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

FCX591A

ISSUE 3 - OCTOBER 1995

PART MARKING DETAIL - P2
COMPLEMENTARY TYPE - FCX491A



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-40	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 $T_{amb}=25^{\circ}C$	P_{tot}	1	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-65 to +150	$^{\circ}C$

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

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Breakdown Voltages	$V_{(BR)CBO}$	-40		V	$I_C = -100\mu A$
	$V_{(BR)CEO}$	-40		V	$I_C = -10mA^*$
	$V_{(BR)EBO}$	-5		V	$I_E = -100\mu A$
Collector Cut-Off Current	I_{CBO}		-100	nA	$V_{CB} = -30V$
Emitter Cut-Off Current	I_{EBO}		-100	nA	$V_{EB} = -4V$
Collector-Emitter Cut-Off Current	I_{CES}		-100	nA	$V_{CE} = -30V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.2	V	$I_C = -100mA, I_B = -1mA^*$
			-0.35	V	$I_C = -500mA, I_B = -20mA^*$
			-0.5	V	$I_C = -1A, I_B = -100mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.1	V	$I_C = -1A, I_B = -50mA^*$
Base-Emitter Turn-on Voltage	$V_{BE(on)}$		-1.0	V	$I_C = -1A, V_{CE} = -5V^*$
Static Forward Current Transfer Ratio	h_{FE}	300	800		$I_C = -1mA,$ $I_C = -100mA^*,$ $I_C = -500mA^*, V_{CE} = -5V$ $I_C = -1A^*,$ $I_C = -2A^*,$
		300			
		250			
		160			
		30			
Transition Frequency	f_T	150		MHz	$I_C = -50mA, V_{CE} = -10V$ $f = 100MHz$
Output Capacitance	C_{obo}		10	pF	$V_{CB} = -10V, f = 1MHz$

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$

Spice parameter data is available upon request for this device

For typical characteristics graphs see FMMT591A datasheet