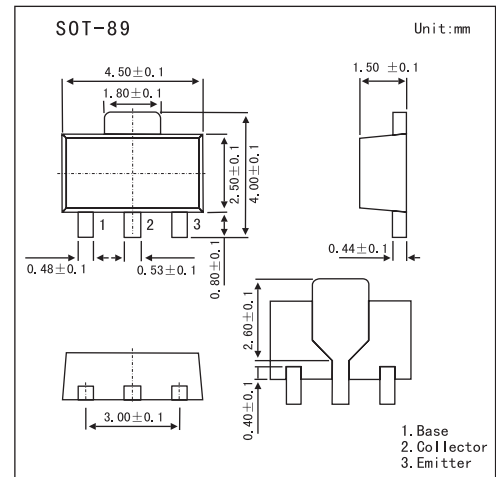


NPN Silicon Planar Medium Power Transistor

FCX493

■ Features

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	120	V
Collector-Emitter Voltage	V_{CE0}	100	V
Emitter-Base Voltage	V_{EB0}	5	V
Continuous Collector Current	I_C	1	mA
Peak Pulse Current	I_{CM}	2	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	$T_j; T_{stg}$	-65 to 150	$^\circ\text{C}$

FCX493

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Max	Unit
Breakdown Voltages	$V_{(BR)CBO}$	$I_C=100\mu A$	120		V
Breakdown Voltages	$V_{CEO(sus)}$	$I_C=10mA^*$	100		V
Breakdown Voltages	$V_{(BR)EBO}$	$I_E=100\mu A$	5		V
Collector Cut-Off Currents	I_{CBO}	$V_{CB}=100V$		100	nA
	I_{CES}	$V_{CES}=100V$		100	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4V$		100	nA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$		0.3	V
		$I_C=1A, I_B=100mA$		0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1A, I_B=100mA$		1.15	V
Base-Emitter Turn On Voltage	$V_{BE(on)}$	$I_C=1A, V_{CE}=10V$		1.0	V
Static Forward Current Transfer Ratio	h_{FE}	$I_C=1mA, V_{CE}=10V^*$	100		
		$I_C=250mA, V_{CE}=10V^*$	100	300	
		$I_C=500mA, V_{CE}=10V^*$	60		
		$I_C=1A, V_{CE}=10V^*$	20		
Transition Frequency	f_T	$I_C=50mA, V_{CE}=10V, f=100MHz$	150		MHz
Collector-Base Breakdown Voltage	C_{obo}	$V_{CB}=10V, f=1MHz$		10	pF

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

■ Marking

Marking	N93
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