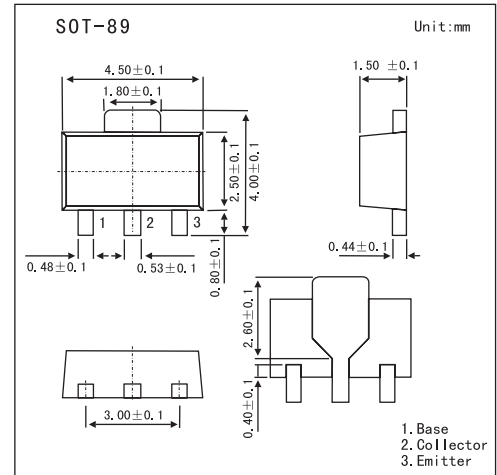


NPN Silicon Planar Medium Power Transistor

FCX493

■ Features

■ 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 =100μA	120		V
Breakdown Voltages	V _{CEO(sus)}	I _C =10mA*	100		V
Breakdown Voltages	V _{(BR)EBO}	I _E =100μA	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=300μs. Duty cycle ≤ 2%

■ Marking

Marking	N93
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