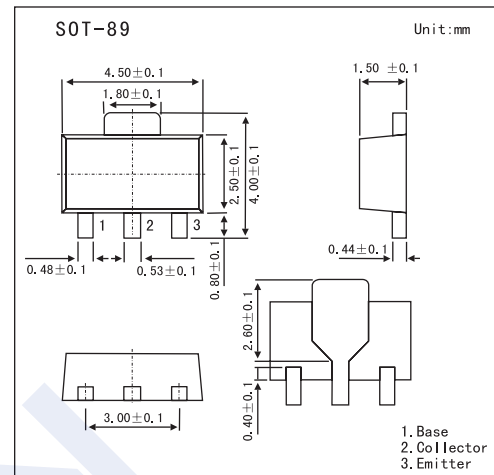
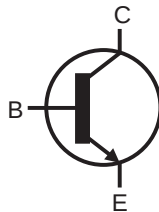


NPN Silicon Planar Medium Power Transistor

FCX493

■ Features

- $BV_{CEO} > 100V$
- $I_C = 1A$ high Continuous Current
- Low saturation voltage $V_{CE(sat)} < 300mV$ @ 250mA

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	100	V
Emitter-Base Voltage	V_{EBO}	5	V
Continuous Collector Current	I_C	1	A
Peak Pulse Current	I_{CM}	2	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	$^\circ C$

NPN Silicon Planar Medium Power Transistor

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■ Electrical Characteristics $T_a = 25^\circ\text{C}$

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

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

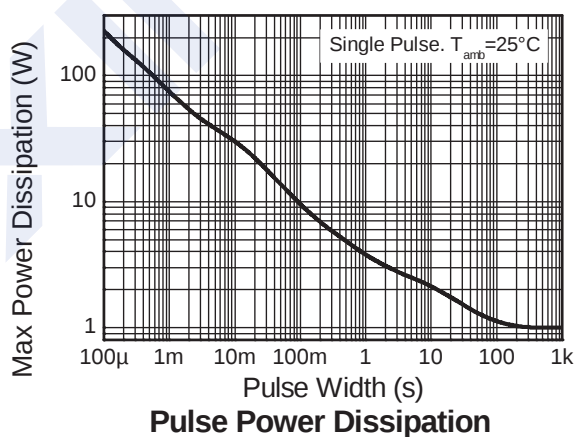
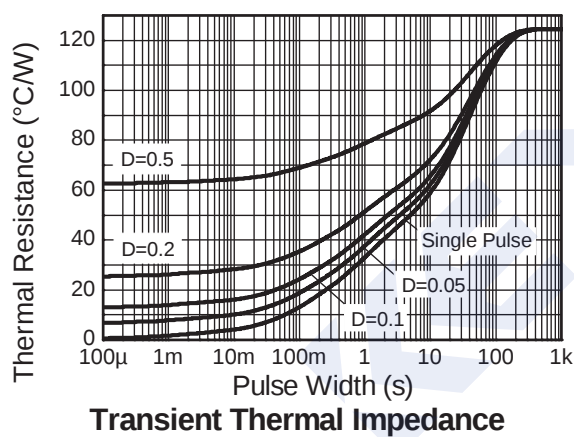
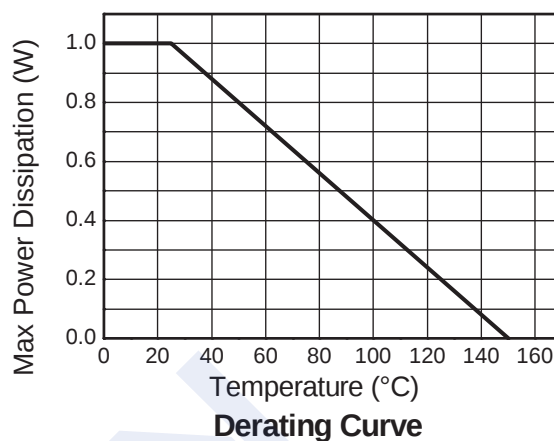
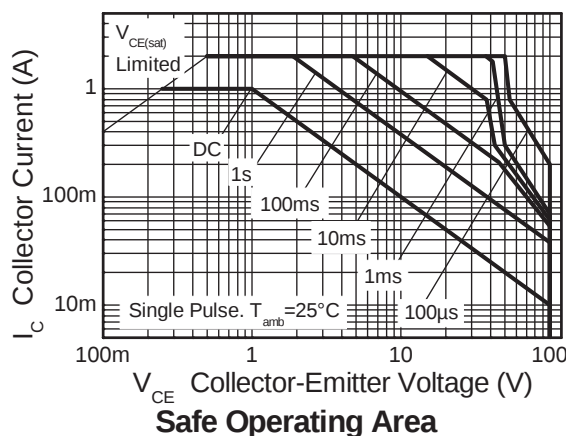
■ Marking

Marking	N93
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NPN Silicon Planar Medium Power Transistor

FCX493

■ Thermal Characteristics and Derating Information



NPN Silicon Planar Medium Power Transistor

FCX493

■ Electrical Characteristics (@ $T_A = +25^\circ\text{C}$, unless otherwise specified.)

