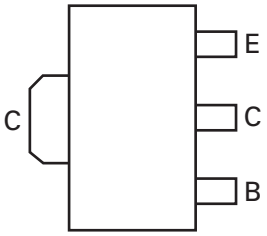
FCX495
SOT89 NPN silicon planar high voltage transistor

Features

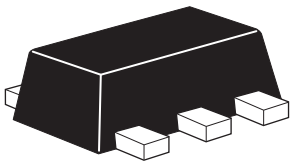
- 150 Volt V_{CEO}
- 1 Amp continuous current

Device marking

N95



Pinout - top view



Absolute maximum ratings

Parameter	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	170	V
Collector-emitter voltage	V_{CEO}	150	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°C	P_{tot}	1	W
Operating and storage temperature range	T_j:T_{stg}	-65 to +150	°C

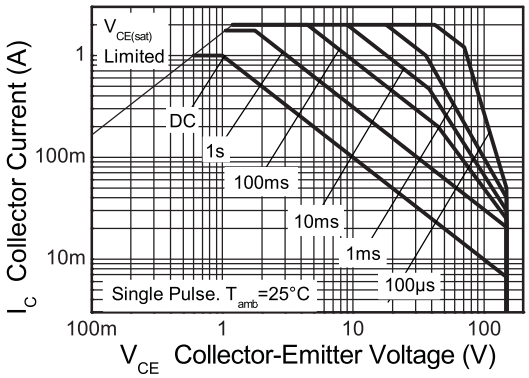
Electrical characteristics (at T_{amb} = 25°C)

Parameter	Symbol	Min.	Max.	Unit	Conditions
Breakdown voltages	$V_{(BR)CBO}$	170		V	I_C=100µA
	$V_{CEO(sus)}$	150		V	I_C=10mA (*)
	$V_{(BR)EBO}$	5		V	I_E=100µA
Collector cut-off currents	I_{CBO}, I_{CES}		100	nA	V_{CB}=150V, V_{CE}=150V
Emitter cut-off current	I_{EBO}		100	nA	V_{EB}=4V
Emitter saturation voltages	$V_{CE(sat)}$		0.2	V	I_C=250mA, I_B=25mA(*)
			0.3	V	I_C=500mA, I_B=50mA(*)
	$V_{BE(sat)}$		1.0	V	I_C=500mA, I_B=50mA(*)
Base-emitter turn on voltage	$V_{BE(on)}$		1.0	V	I_C=500mA, V_{CE}=10V(*)
Static forward current transfer ratio	h_{FE}	100	300		I_C=1mA, V_{CE}=10V
		100			I_C=250mA, V_{CE}=10V(*)
		50			I_C=500mA, V_{CE}=10V(*)
		10			I_C=1A, V_{CE}=10V(*)
Transition frequency	f_T	100		MHz	I_C=50mA, V_{CE}=10V f=100MHz
Collector-base breakdown voltage	C_{obo}		10	pF	V_{CB}=10V, f=1MHz

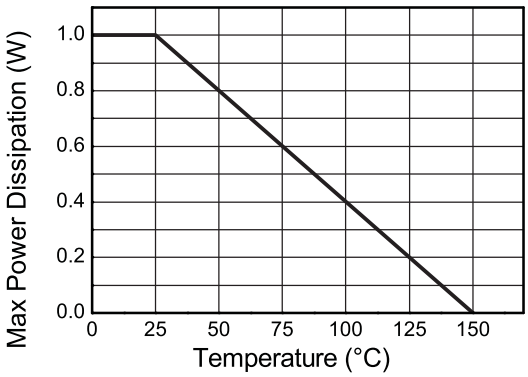
NOTES:
(*) Measured under pulsed conditions. Pulse width = 300µs. Duty cycle ≤2%

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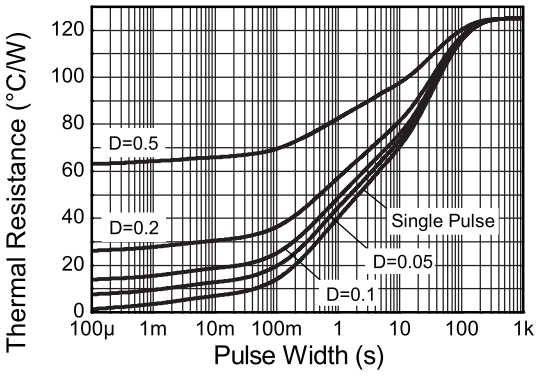
Typical characteristics



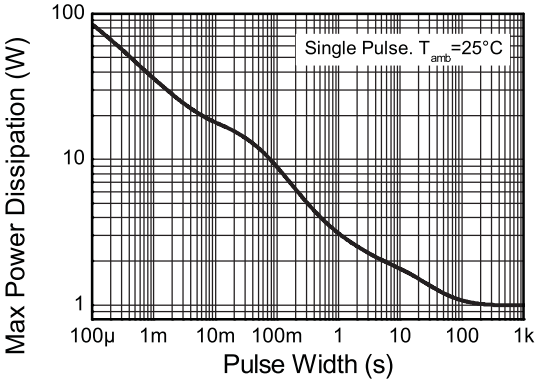
Safe Operating Area



Derating Curve



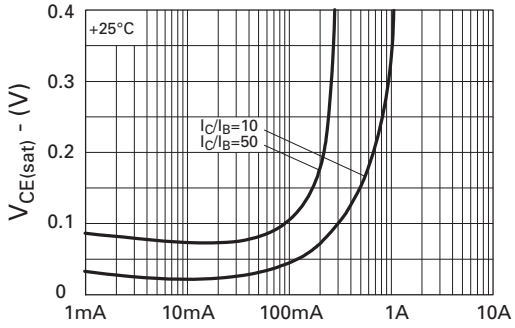
Transient Thermal Impedance



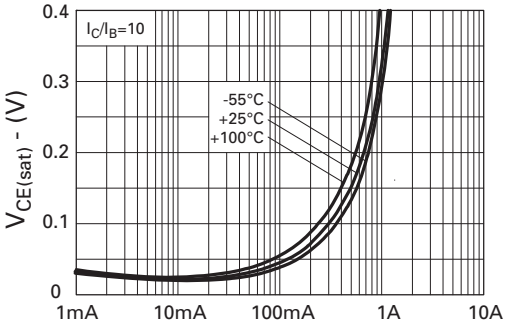
Pulse Power Dissipation

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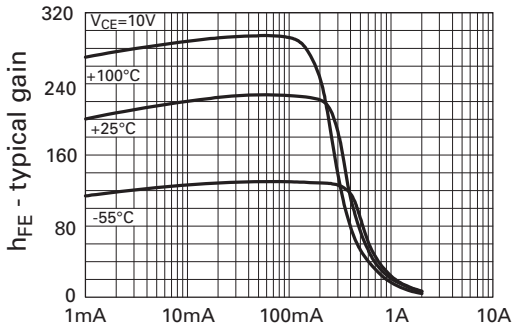
Typical characteristics



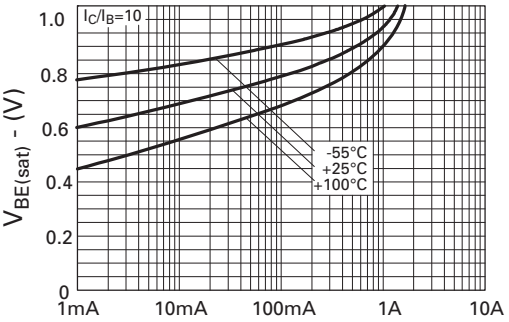
$V_{CS(sat)}$ vs. I_C



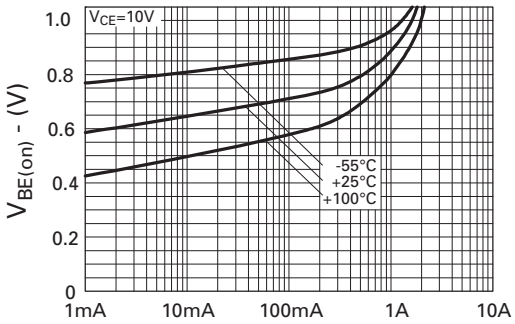
$V_{CS(sat)}$ vs. I_C



h_{FE} vs. I_C



$V_{BE(sat)}$ vs. I_C



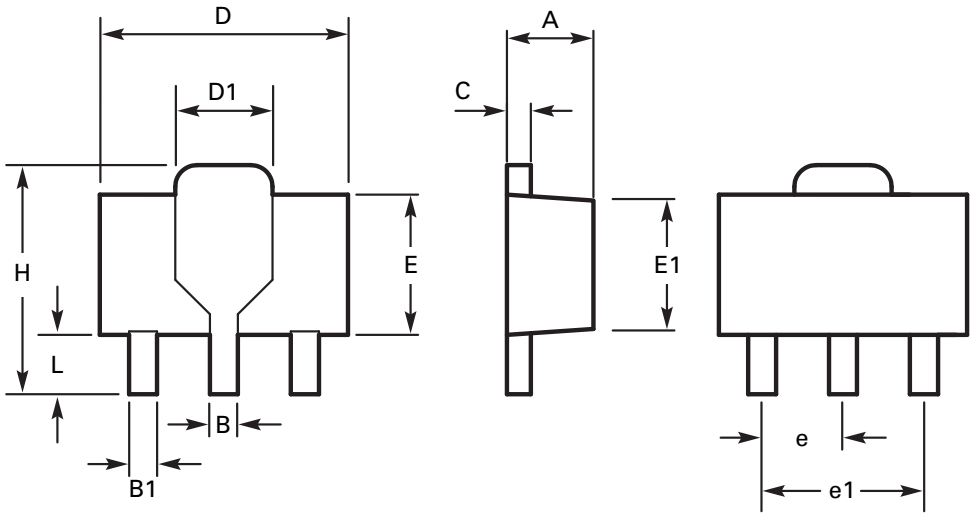
$V_{BE(on)}$ vs. I_C

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Package outline - SOT89



DIM	Millimeters		Inches		DIM	Millimeters		Inches	
	Min	Max	Min	Max		Min	Max	Min	Max
A	1.40	1.60	0.550	0.630	E	2.29	2.60	0.090	0.102
B	0.44	0.56	0.017	0.022	E1	2.13	2.29	0.084	0.090
B1	0.36	0.48	0.014	0.019	e	1.50 BSC		0.059 BSC	
C	0.35	0.44	0.014	0.017	e1	3.00 BSC		0.118 BSC	
D	4.40	4.60	0.173	0.181	H	3.94	4.25	0.155	0.167
D1	1.52	1.83	0.064	0.072	L	0.89	1.20	0.035	0.047

Note: Controlling dimensions are in millimeters. Approximate dimensions are provided in inches

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"Obsolete"	Production has been discontinued

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