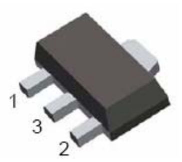
NPN Silicon Planar Medium Power Transistor

FCX491

FEATURES

- 60 Volt V_{CEO}
- 1Amp continuous current
- Ptot=1Watt

Lead-free



SOT-89

ORDERING INFORMATION

Type No.	Marking	Package Code
FCX491	N1	SOT-89

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_{CM}	Peak Pulse Current	2	A
I_C	Collector Current -Continuous	1	A
P_D	Power Dissipation	1	W
T_j,T_{stg}	Junction and Storage Temperature	-65 to +150	℃

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA,I_B=0	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=60V			100	nA
Collector-Emitter Cut-Off Current	I_{CES}	V_{CES}=60V			100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			100	nA
DC current gain	h_{FE}	V_{CE}=5V,I_C=1mA V_{CE}=5V,I_C=500mA V_{CE}=5V,I_C=1A V_{CE}=5V,I_C=2A	100 100 80 30	300		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500mA, I_B= 50mA I_C=1A, I_B= 100mA			0.25 0.50	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=1A, I_B= 100mA			1.1	V
Base-emitter Turn-on Voltage	$V_{BE(on)}$	I_C=1A,V_{CE}=5V			1.0	V
Transition frequency	f_T	V_{CE}=10V, I_C= 50mA, f=100MHz	150			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz			10	pF

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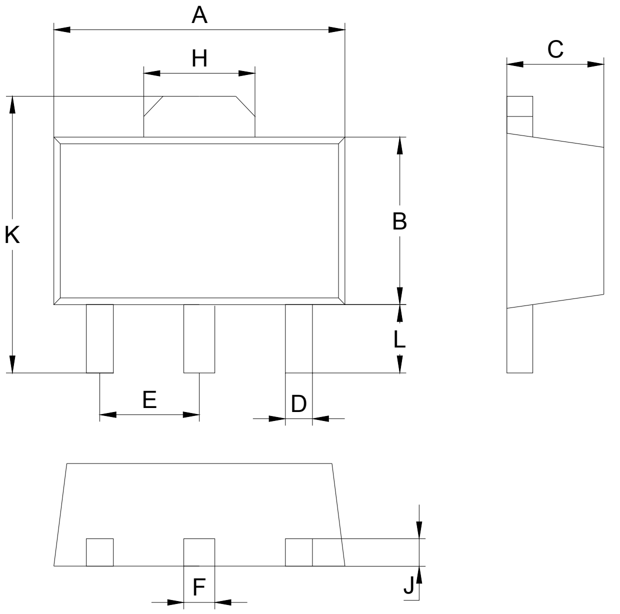
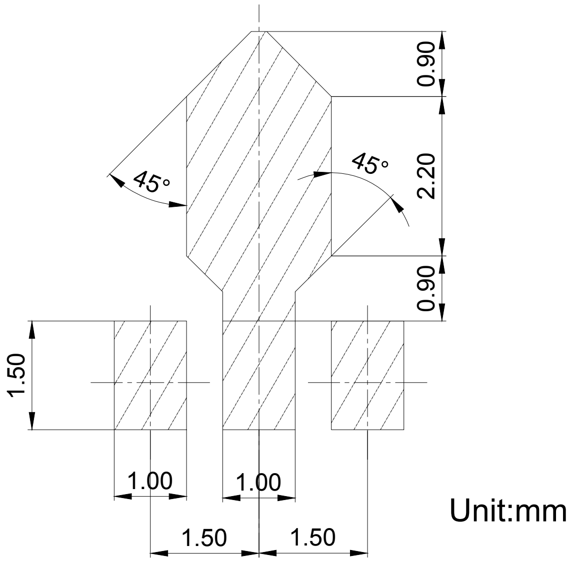
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.50 Typical	
D	0.40 Typical	
E	1.40	1.60
F	0.48 Typical	
H	1.60	1.80
J	0.40 Typical	
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
FCX491	SOT-89	1000/Tape&Reel