SJT4793NF NPN SILICON TRANSISTOR

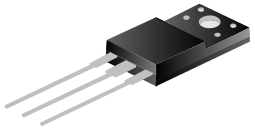
DESCRIPTIONS

SJT4793NF is NPN silicon transistor fabricated with Silan planar transistor technology, The advanced technology of multilayer epitaxy, ultra-low density of crystal defects, polyimide passivation, and thin chip of less than 200 microns makes low thermal resistance, large power dissipation and good reliability of SJT4793NF. Optimized die structure design and package design promote secondary breakdown resistance of the device.

This product is mainly used for output power level or driver stage of audio power amplifier in household appliances, AV equipment, professional audio equipment and car stereo audio, has the characteristics of wide linear range and low distortion.

The package available is TO-220F-3L.

Complementary PNP transistor: SJT1837PF.

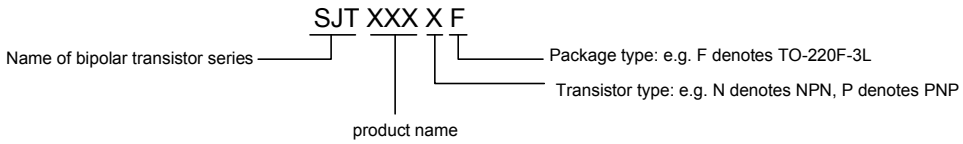


TO-220F-3L

FEATURES

- High breakdown voltage margin
- Very low leakage current
- High output power: 20W
- High secondary breakdown tolerance and reliability

NOMENCLATURE



ORDERING INFORMATION

Part No.	Package	Marking	Material	Packing
SJT4793NF	TO-220F-3L	SJT4793NF	Pb free	Tube

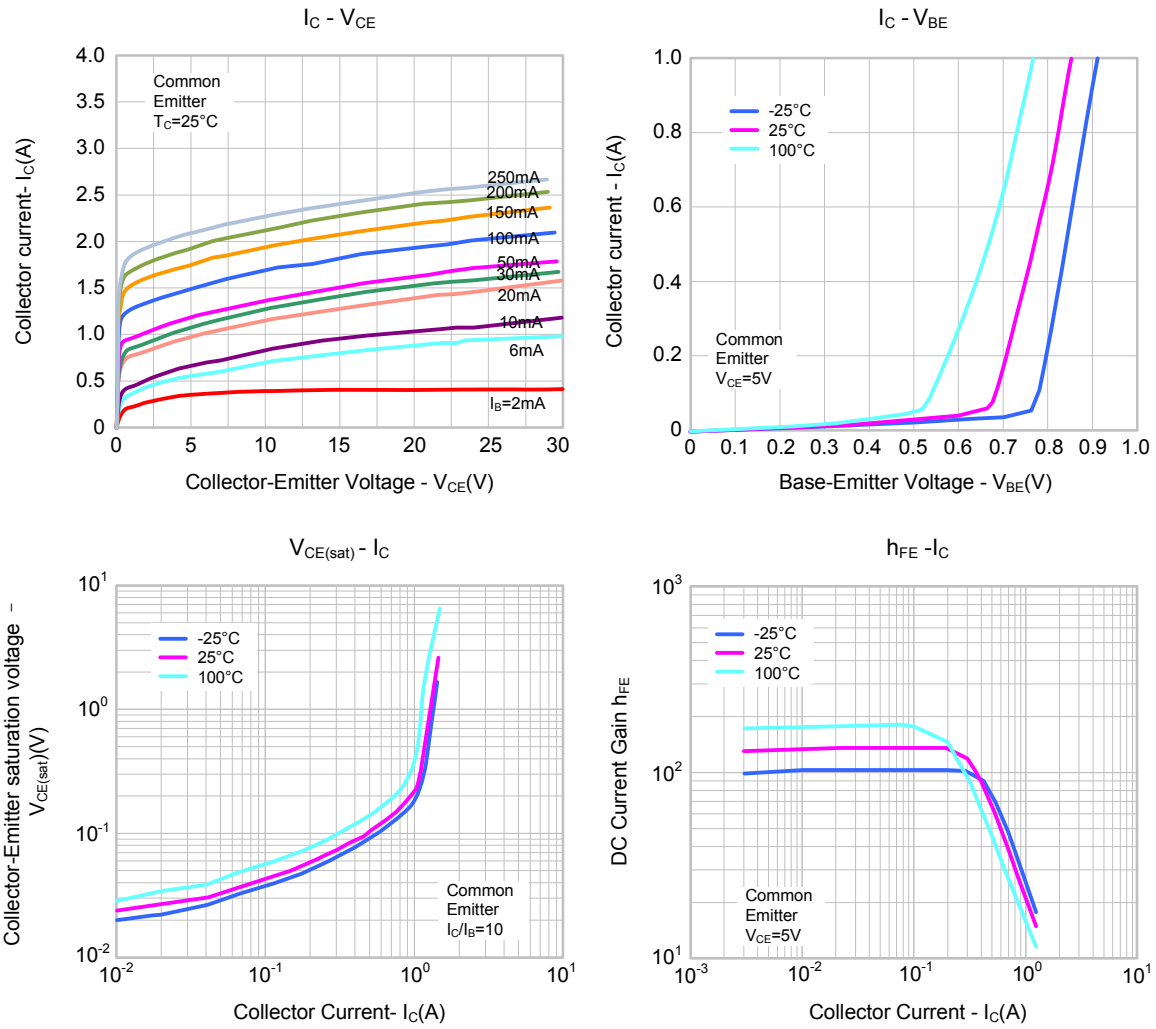
ABSOLUTE MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Characteristics	Symbol	Rating		Unit
Collector-Emitter Breakdown Voltage	BV_{CEO}	250	I_C=1mA，I_B=0	V
Emitter-Base Breakdown Voltage	BV_{EBO}	5	I_E=1mA，I_C=0	V
Collector-Base Breakdown Voltage	BV_{CBO}	250	I_C=100uA，I_E=0	V
Collector Current	I_C	1		A
Base Current	I_B	0.1		A
Operating Junction Temperature Range	T_J	150		°C
Storage Temperature Range	T_{stg}	-55~+150		°C
Collector power dissipation (T_C=25°C)	P_C	20		W

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise noted)

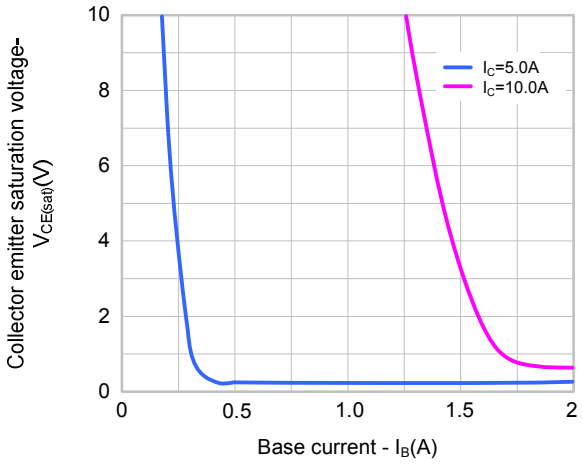
Characteristics	Symbol	Test Condition	Min.	Typ.	Max.	Unit
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=100mA	100	--	320	--
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	Ic=500mA,Ib=50mA	--	--	1	V
Base - Emitter Voltage	V_{BE}	V_{CE}=5V, Ic=500mA	--	--	1	V
Collector-Base Leakage Current	I_{CBO}	V_{CB}=250V, I_E=0	--	--	1	μA
Collector-Emitter Leakage Current	I_{CEO}	V_{CE}=230V, I_B=0	--	--	20	μA
Emitter -Base Leakage Current	I_{EBO}	V_{EB}=5V, I_C=0	--	--	1	μA
Transition Frequency	FT	V_{CE}=10V, I_C=100mA	--	100	--	MHZ
Collector Output Capacitance	C_{OB}	V_{CB} =10V, I_E =0, f=1MHz	--	15	--	pF

TYPICAL ELECTRICAL CHARACTERISTICS CURVE

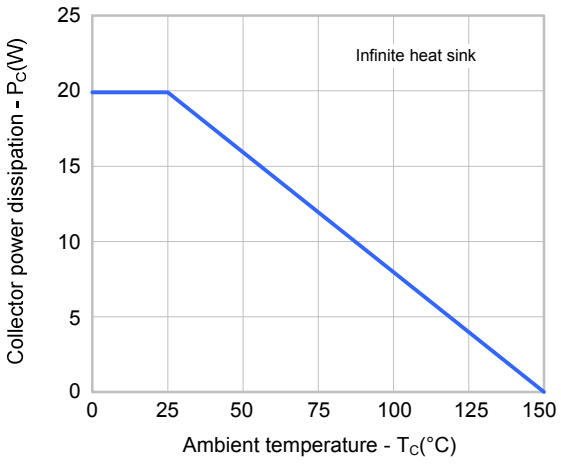


TYPICAL ELECTRICAL CHARACTERISTICS CURVE(continued)

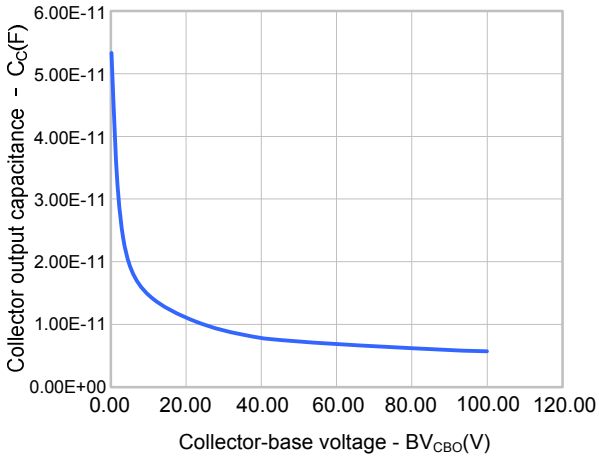
$V_{CE(sat)}$ - I_B



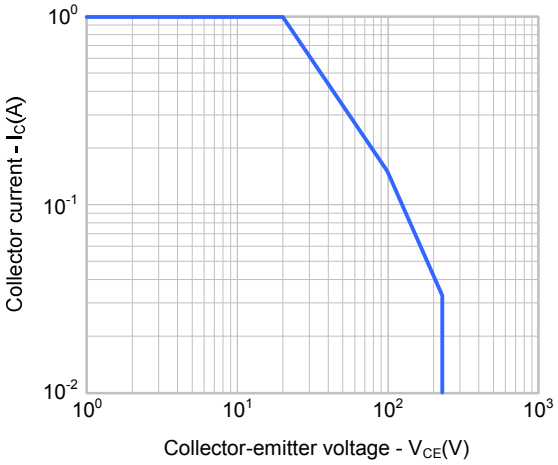
P_C - T_C



C_C - BV_{CBO}

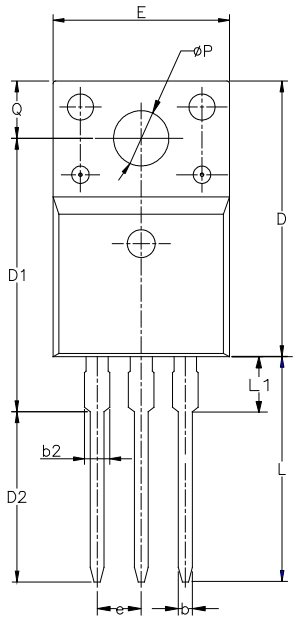


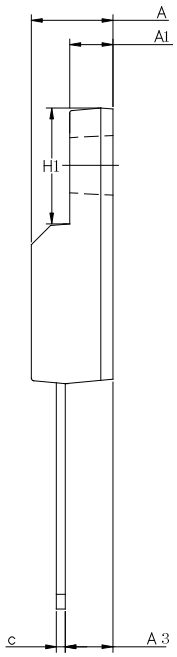
Safe Operating Area



PACKAGE OUTLINE

TO-220F-3L **Unit: mm**





SYMBOL	MIN	NOM	MAX
A	4.42	4.70	5.02
A1	2.30	2.54	2.80
A3	2.50	2.76	3.10
b	0.70	0.80	0.90
b2	—	—	1.47
c	0.35	0.50	0.65
D	15.25	15.87	16.25
D1	15.30	15.75	16.30
D2	9.30	9.80	10.30
E	9.73	10.16	10.36
e	2.54BCS		
H1	6.40	6.68	7.00
L	12.48	12.98	13.48
L1	/	/	3.50
øP	3.00	3.18	3.40
Q	3.05	3.30	3.55

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Rev.:	1.1	Author:	Yin Zi

Revision History:

1. Modify the package information

Rev.:	1.0	Author:	Linying

Revision History:

1. First release