

Silicon PNP Power Transistors

MJF15031

DESCRIPTION

- With TO-220F package
- Complement to type MJE15028/30
- High transition frequency
- DC Current Gain Specified to 4.0 Amperes
 $h_{FE} = 40 \text{ (Min) @ } I_C = -3.0 \text{ Adc}$
 $h_{FE} = 20 \text{ (Min) @ } I_C = -4.0 \text{ Adc}$

APPLICATIONS

- Designed for use as high–frequency drivers in audio amplifiers.

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

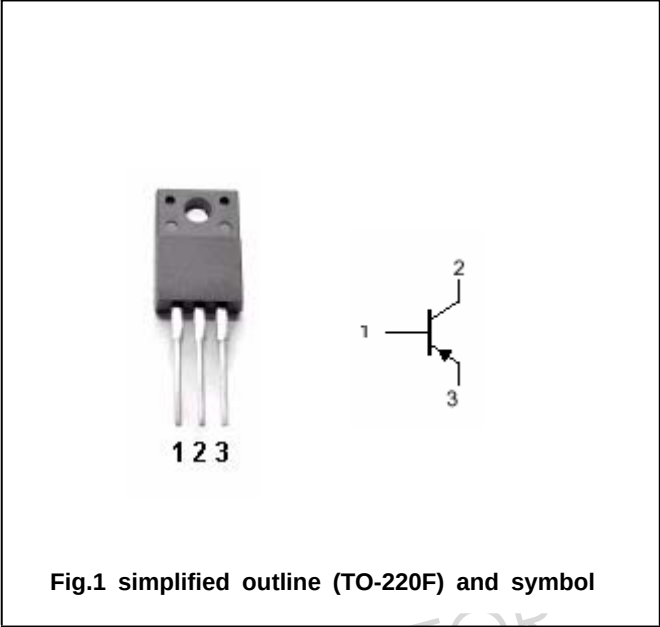


Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings (Tc=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-150	V
V_{CEO}	Collector-emitter voltage	Open base	-150	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current (DC)		-8	A
I_{CM}	Collector current-Peak		-16	A
I_B	Base current		-2	A
P_D	Total power dissipation	$T_a=25^\circ\text{C}$	2	W
		$T_c=25^\circ\text{C}$	36	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-C}$	Thermal resistance ; junction to case	3.5	$^\circ\text{C/W}$
$R_{th\ j-A}$	Thermal resistance , junction to ambient	62.5	$^\circ\text{C/W}$

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CHARACTERISTICS

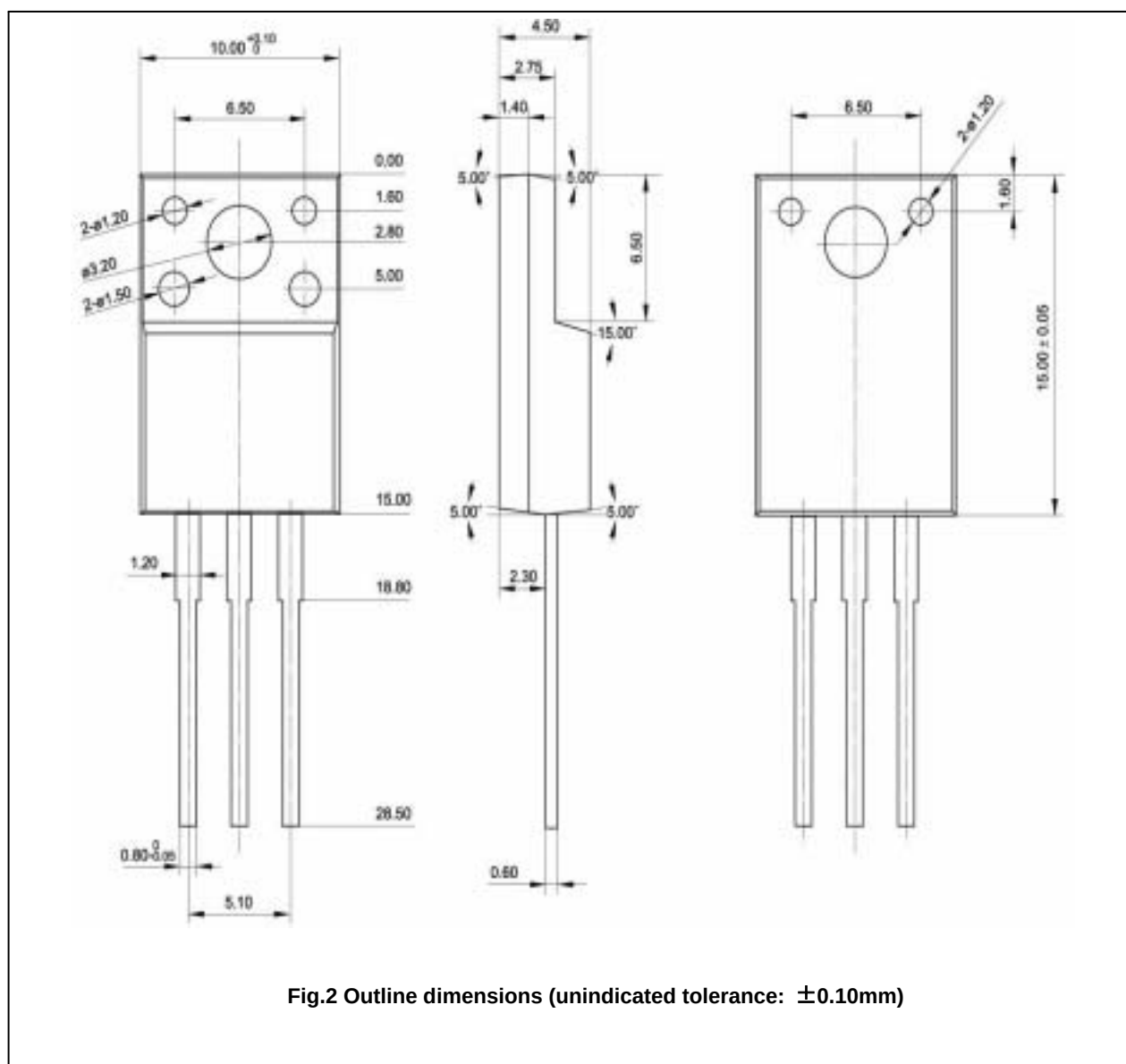
Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=-10mA ; I_B=0$	-150			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=-1A ; I_B=-0.1A$			-0.5	V
V_{BE}	Base-emitter on voltage	$I_C=-1A ; V_{CE}=-2V$			-1.0	V
I_{CBO}	Collector cut-off current	$V_{CB}=-150V ; I_E=0$			-10	μA
I_{CEO}	Collector cut-off current	$V_{CE}=-150V ; I_B=0$			-10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=-5V ; I_C=0$			-10	μA
h_{FE-1}	DC current gain	$I_C=-0.1A ; V_{CE}=-2V$	40			
h_{FE-2}	DC current gain	$I_C=-2A ; V_{CE}=-2V$	40			
h_{FE-3}	DC current gain	$I_C=-3A ; V_{CE}=-2V$	40			
h_{FE-4}	DC current gain	$I_C=-4A ; V_{CE}=-2V$	20			
f_T	Transition frequency	$I_C=-0.5A ; V_{CE}=-10V ; f=10MHz$	30			MHz

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PACKAGE OUTLINE

Fig.2 Outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)

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