

Silicon PNP Power Transistors

MJF45H11

DESCRIPTION

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- With TO-220F package
- Fast switching speeds
- Low collector saturation voltage
- Complement to type MJF44H11

APPLICATIONS

- For general purpose power amplification and switching regulators, converters and power amplifiers applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

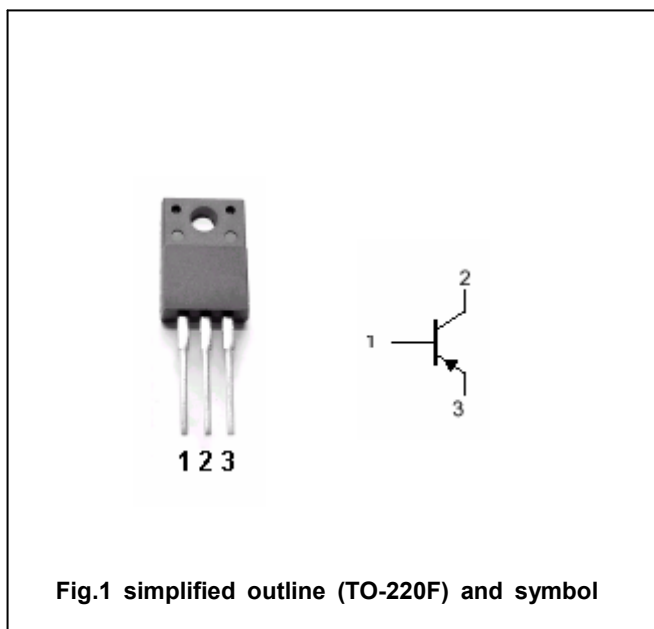


Fig.1 simplified outline (TO-220F) and symbol

ABSOLUTE MAXIMUM RATINGS(Tc=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	-80	V
V _{CEO}	Collector-emitter voltage	Open base	-80	V
V _{EBO}	Emitter-base voltage	Open collector	-5	V
I _C	Collector current (DC)		-10	A
I _{CM}	Collector current-Peak		-20	A
P _D	Total power dissipation	T _c =25°C	36	W
		T _a =25°C	2.0	
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{th j-C}	Thermal resistance from junction to case	3.5	°C/W
R _{th j-A}	Thermal resistance from junction to ambient	62.5	°C/W

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =-30mA I _B =0,	-80			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =-8A; I _B =-0.4A			-1.0	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =-8A ; I _B =-0.8A			-1.5	V
I _{CES}	Collector cut-off current	V _{CE} =RatedBV _{CEO} ; V _{BE} =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 =-2A ; V _{CE} =-1V	60			
h _{FE-2}	DC current gain	I _C =-4A ; V _{CE} =-1V	40			
f _T	Transition frequency	I _C =-0.5A ; V _{CE} =-10V, f=20MHz		40		MHz
C _{cb}	Collector capacitance	f=1MHz ; V _{CB} =-10V		230		pF

Switching times

t _{on}	Turn-on time	I _C =-5A I _{B1} =- I _{B2} =-0.5A		0.3		μs
t _s	Storage time			0.5		μs
t _f	Fall time			0.14		μs

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PACKAGE OUTLINE

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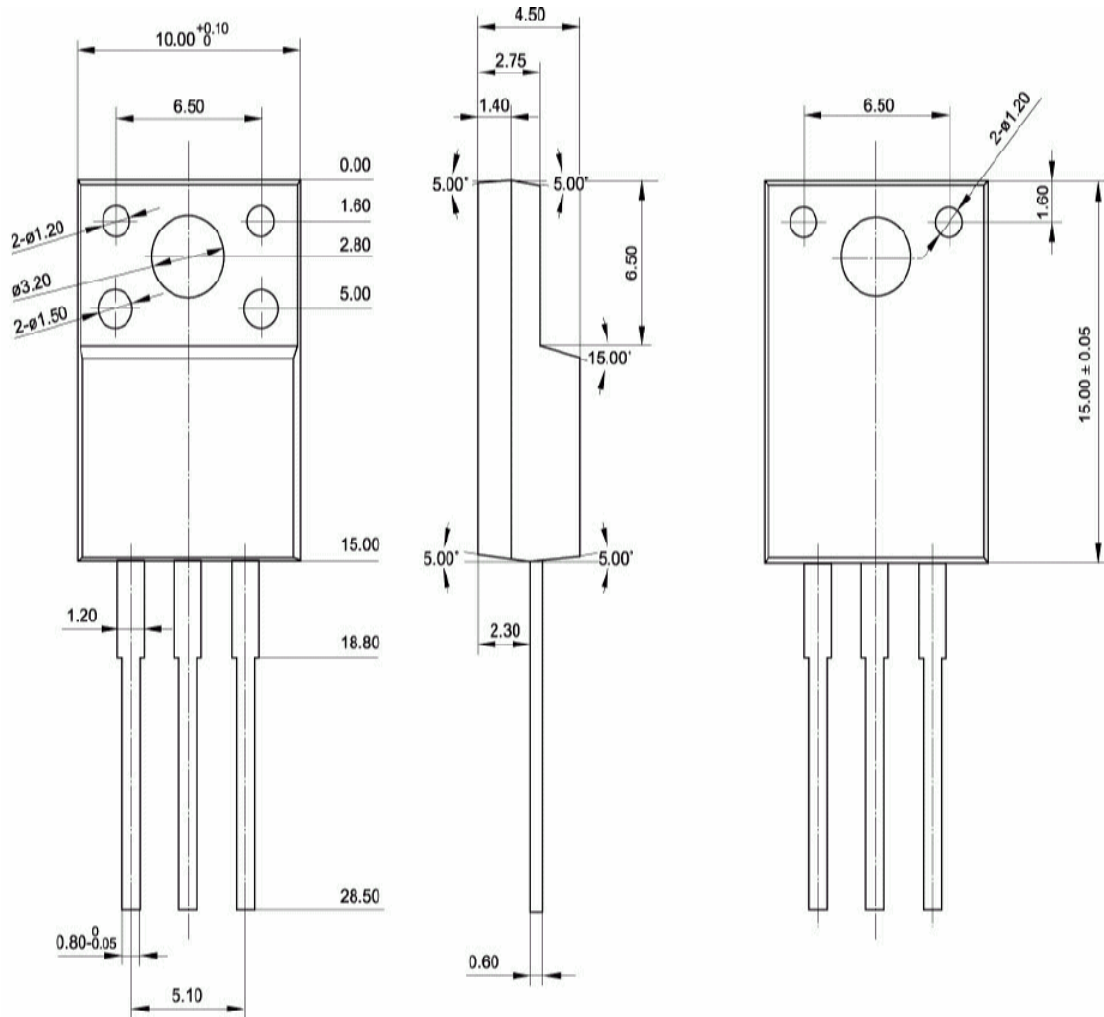


Fig.2 Outline dimensions