

Silicon NPN Power Transistors

2SD2101

DESCRIPTION

- With TO-220Fa package
- DARLINGTON

APPLICATIONS

- Low frequency power amplifier

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

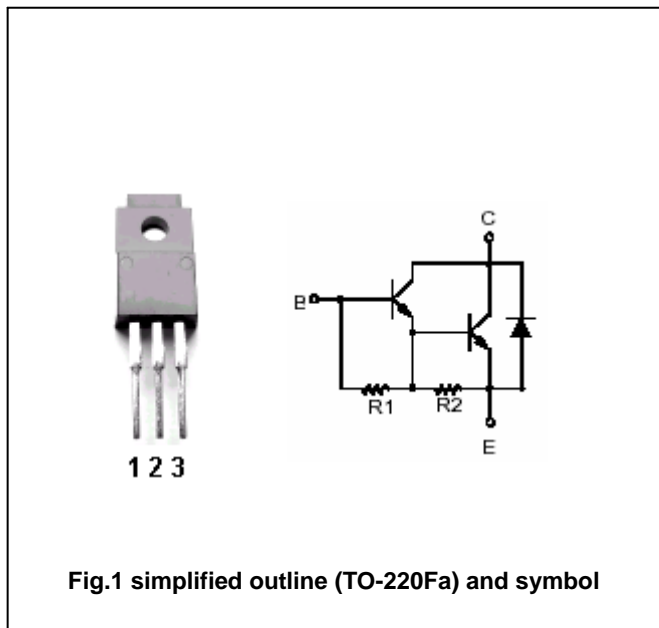


Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	200	V
V_{CEO}	Collector -emitter voltage	Open base	200	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		10	A
I_{CP}	Collector current peak		15	A
P_C	Collector power dissipation	$T_C=25$	30	W
		$T_a=25$	2	
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =50mA; I _C =0	7			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =0.1mA; I _C =0	200			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =25mA; R _{BE} =	200			V
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =5A; L=5mH	170			V
V _{CE(sat-1)}	Collector-emitter saturation voltage	I _C =5A ; I _B =10mA			1.5	V
V _{CE(sat-2)}	Collector-emitter saturation voltage	I _C =10A ; I _B =100mA			3.0	V
V _{BE(sat-1)}	Base-emitter saturation voltage	I _C =5A ; I _B =10mA			2.0	V
V _{BE(sat-2)}	Base-emitter saturation voltage	I _C =10A ; I _B =100mA			3.5	V
I _{CBO}	Collector cut-off current	V _{CB} =180V; I _E =0			10	μ A
I _{CEO}	Collector cut-off current	V _{CE} =180V; R _{BE} =			50	μ A
h _{FE}	DC current gain	I _C =5A ; V _{CE} =3V	1500			

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PACKAGE OUTLINE

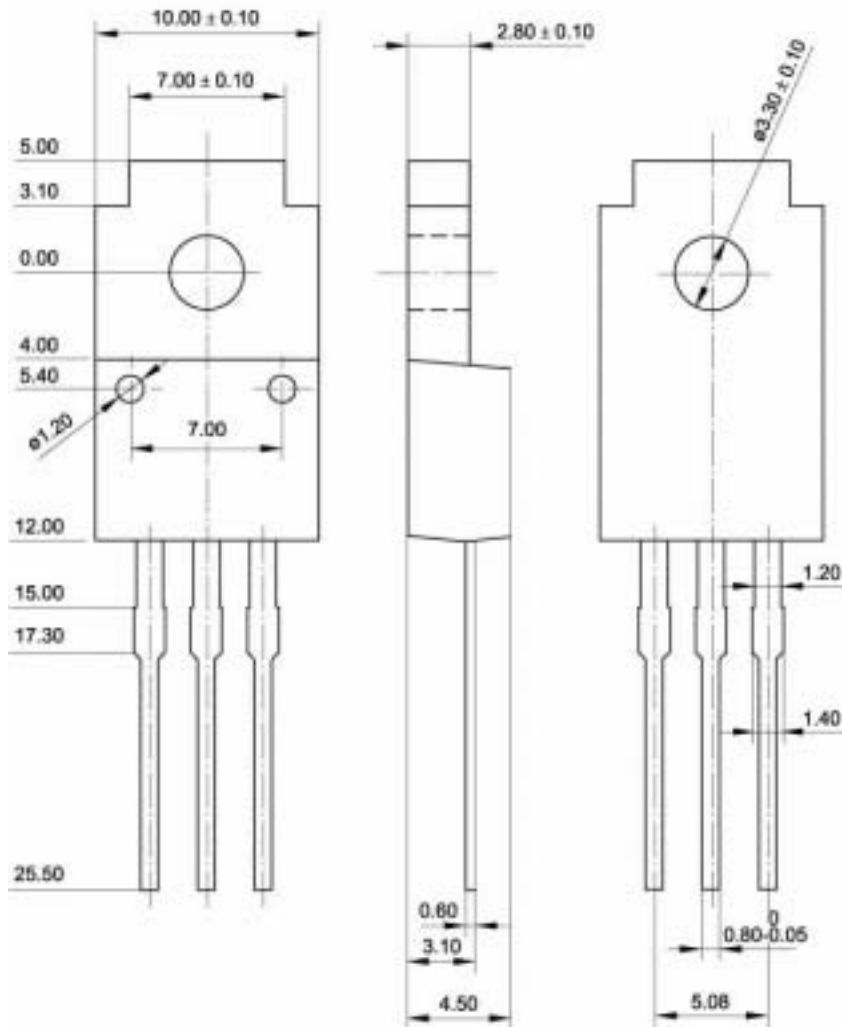


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)