

Silicon NPN Power Transistors

2SC1418

DESCRIPTION

- With TO-220 package
- Large collector power dissipation

APPLICATIONS

- For medium power amplifier applications

PINNING

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

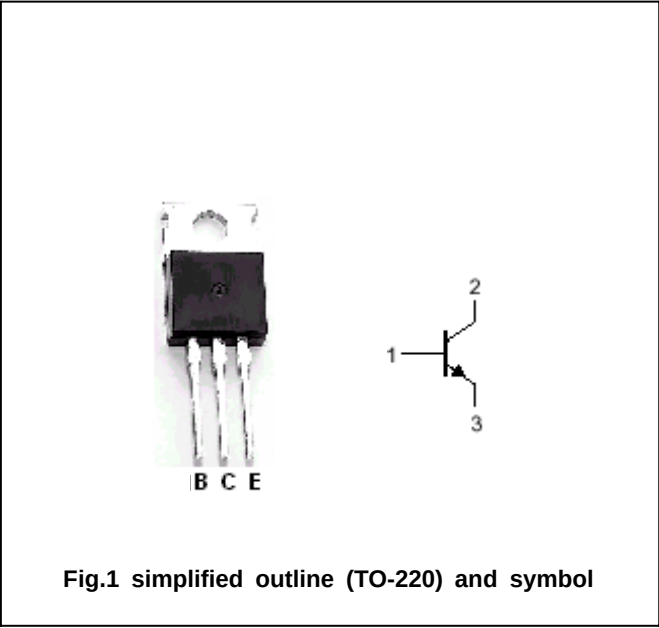


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	50	V
V _{CEO}	Collector-emitter voltage	Open base	50	V
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		2	A
I _{CM}	Collector current-peak		3	A
P _C	Collector power dissipation	T _C =25℃	20	W
T _j	Junction temperature		150	℃
T _{stg}	Storage temperature		-55~150	℃

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CHARACTERISTICS

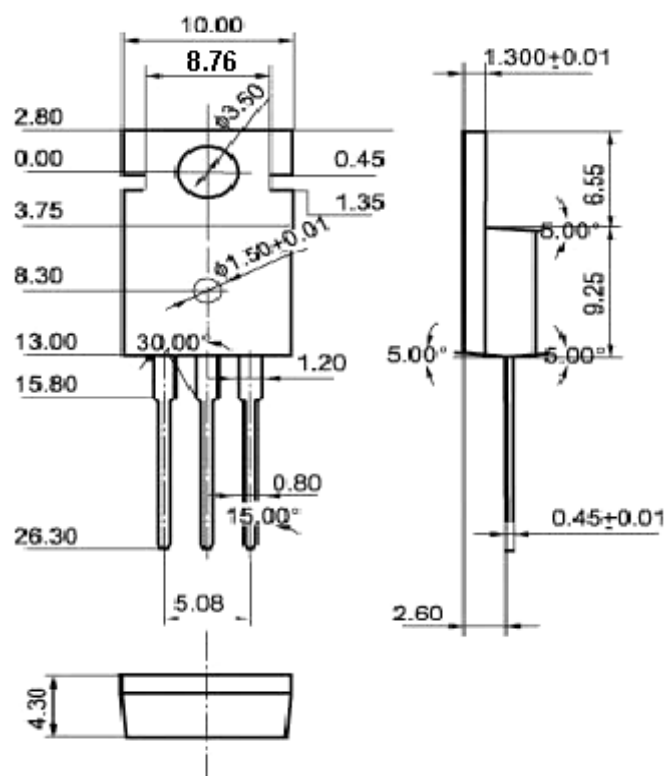
T_j=25°C unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =30mA, I _B =0	50			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA, I _E =0	50			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA, I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =1A; I _B =0.1A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =1A; I _B =0.1A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =50V; I _E =0			100	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			100	μ A
h _{FE}	DC current gain	I _C =1A; V _{CE} =4V	35		320	
f _T	Transition frequency	I _C =0.5A; V _{CE} =10V		5		MHz

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PACKAGE OUTLINE

Fig.2 Outline dimensions(unindicated tolerance: ± 0.10 mm)