

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

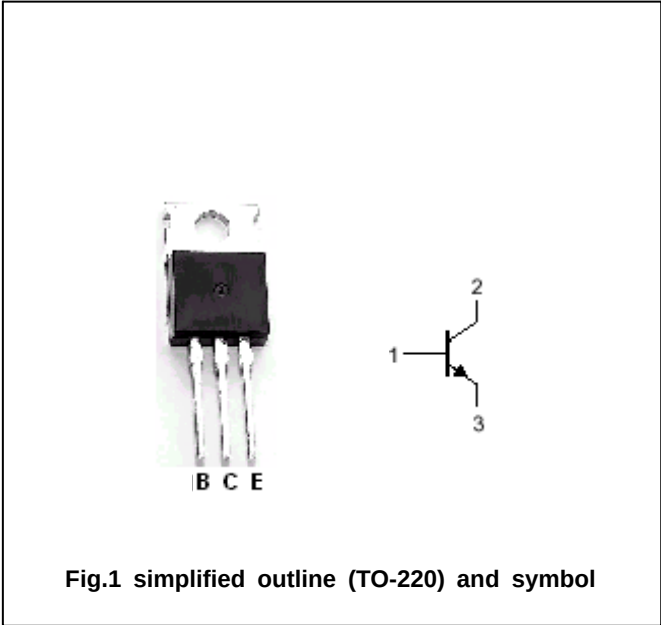


Fig.1 simplified outline (TO-220) and symbol

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

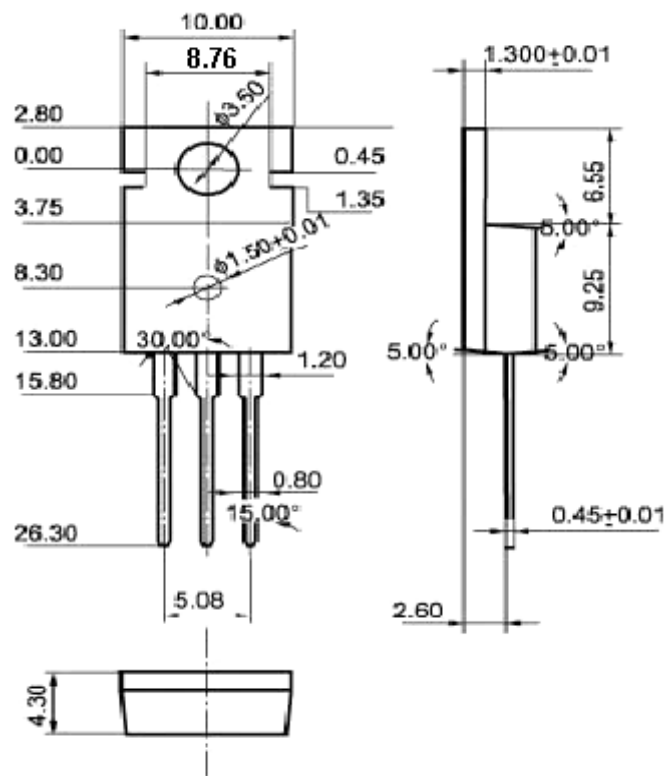
Tj=25°C unless otherwise specified.

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	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V; I_C=0$			100	μA
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)