

Silicon NPN Power Transistors

2SC2307

DESCRIPTION

- With TO-3PN package
- High voltage ,high speed

APPLICATIONS

- For power switching applications

PINNING

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

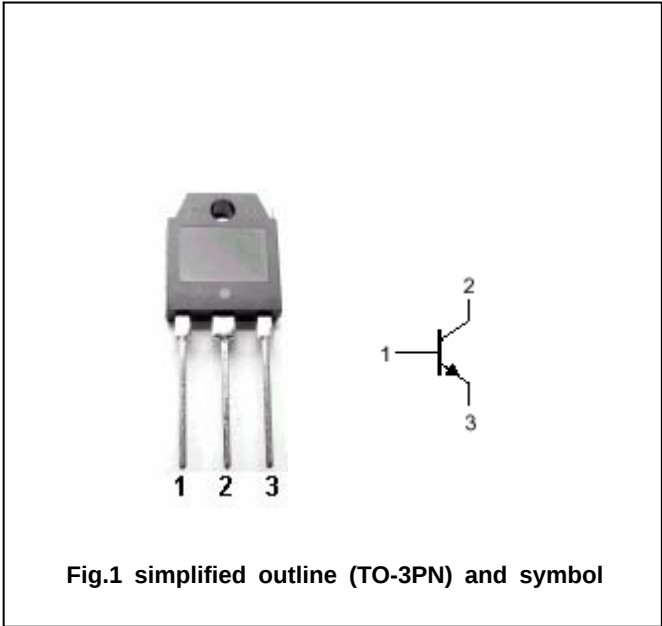


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _{CBO}	Collector-base voltage	Open emitter	500	V
V _{CEO}	Collector-emitter voltage	Open base	400	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current (DC)		12	A
P _C	Collector power dissipation	T _C =25	100	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

Tj=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=25mA ; I_B=0$	400			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=1mA ; I_E=0$	500			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1mA ; I_C=0$	7			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=7A ; I_B=1.4A$			0.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=7A ; I_B=1.4A$			1.3	V
I_{CBO}	Collector cut-off current	$V_{CB}=500V ; I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=7V ; I_C=0$			100	μA
h_{FE}	DC current gain	$I_C=7A ; V_{CE}=4V$	10			
f_T	Transition frequency	$I_C=1A ; V_{CE}=12V$		18		MHz

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PACKAGE OUTLINE

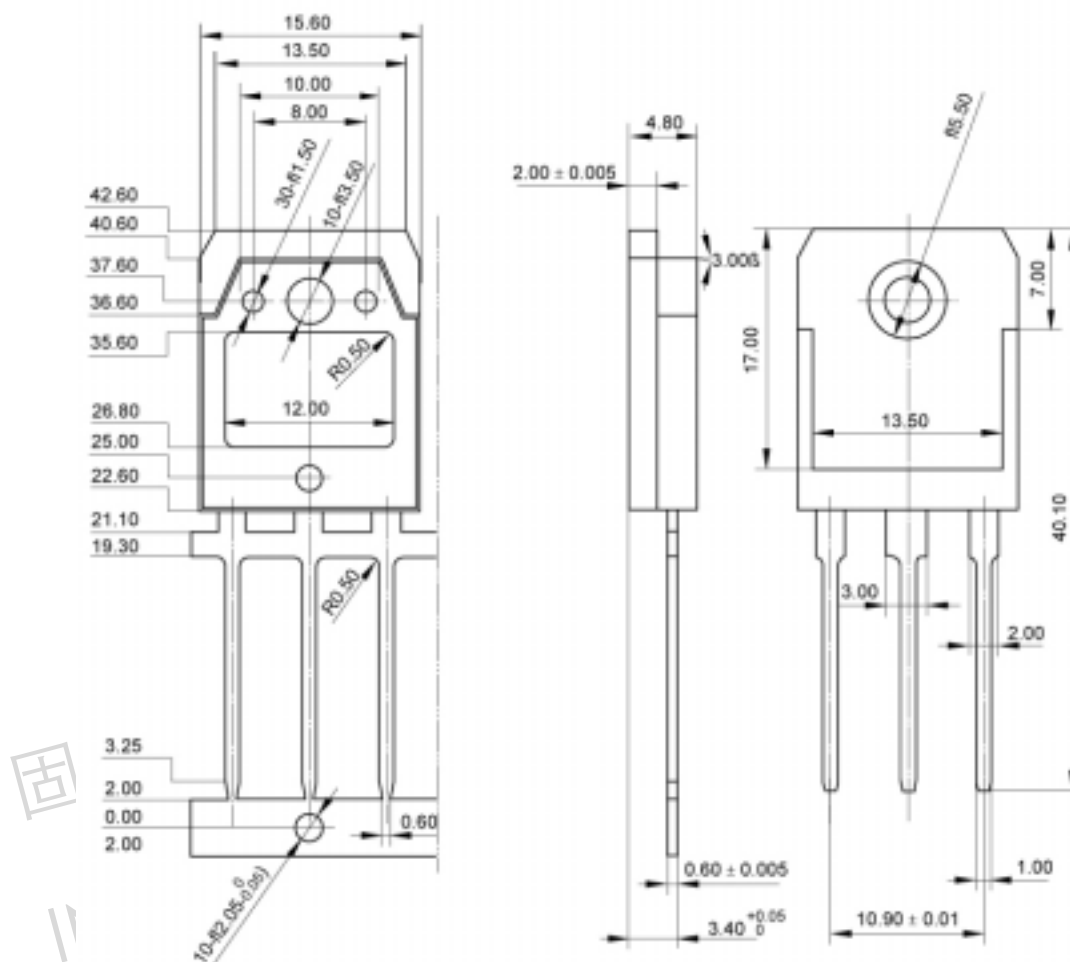


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.1\text{mm}$)