

Silicon NPN Power Transistors

2SC3164

DESCRIPTION

- With TO-247 package
- Switching power transistor
- High breakdown voltage

PINNING

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

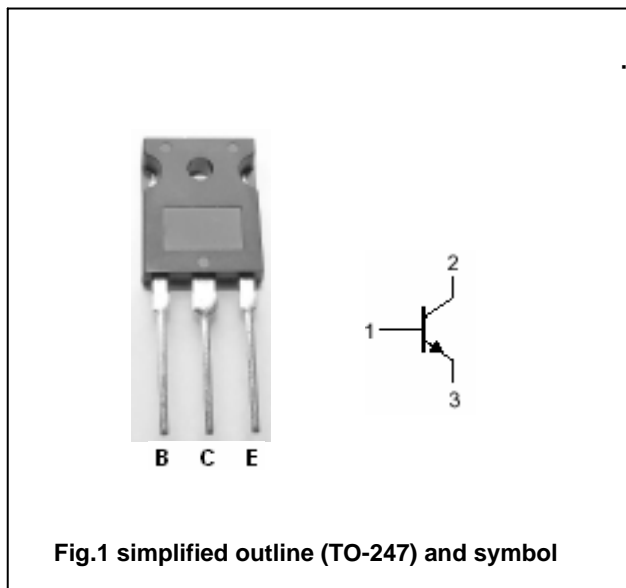


Fig.1 simplified outline (TO-247) and symbol

Absolute maximum ratings(Tc=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	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)		10	A
I_B	Base current		4	A
P_D	Total power dissipation	$T_C=25$	100	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal resistance junction to case	1.25	/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.1A; I _B =0	400			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A ; I _B =1A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A ; I _B =1A			1.5	V
I _{CBO}	Collector cut-off current	At rated voltage			0.1	mA
I _{CEO}	Collector cut-off current					
I _{EBO}	Emitter cut-off current	At rated voltage			0.1	mA
h _{FE-1}	DC current gain	I _C =5A ; V _{CE} =2V	15			
h _{FE-2}	DC current gain	I _C =1mA ; V _{CE} =2V	5			
f _T	Transition frequency	I _C =0.6A ; V _{CE} =10V		20		MHz

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PACKAGE OUTLINE

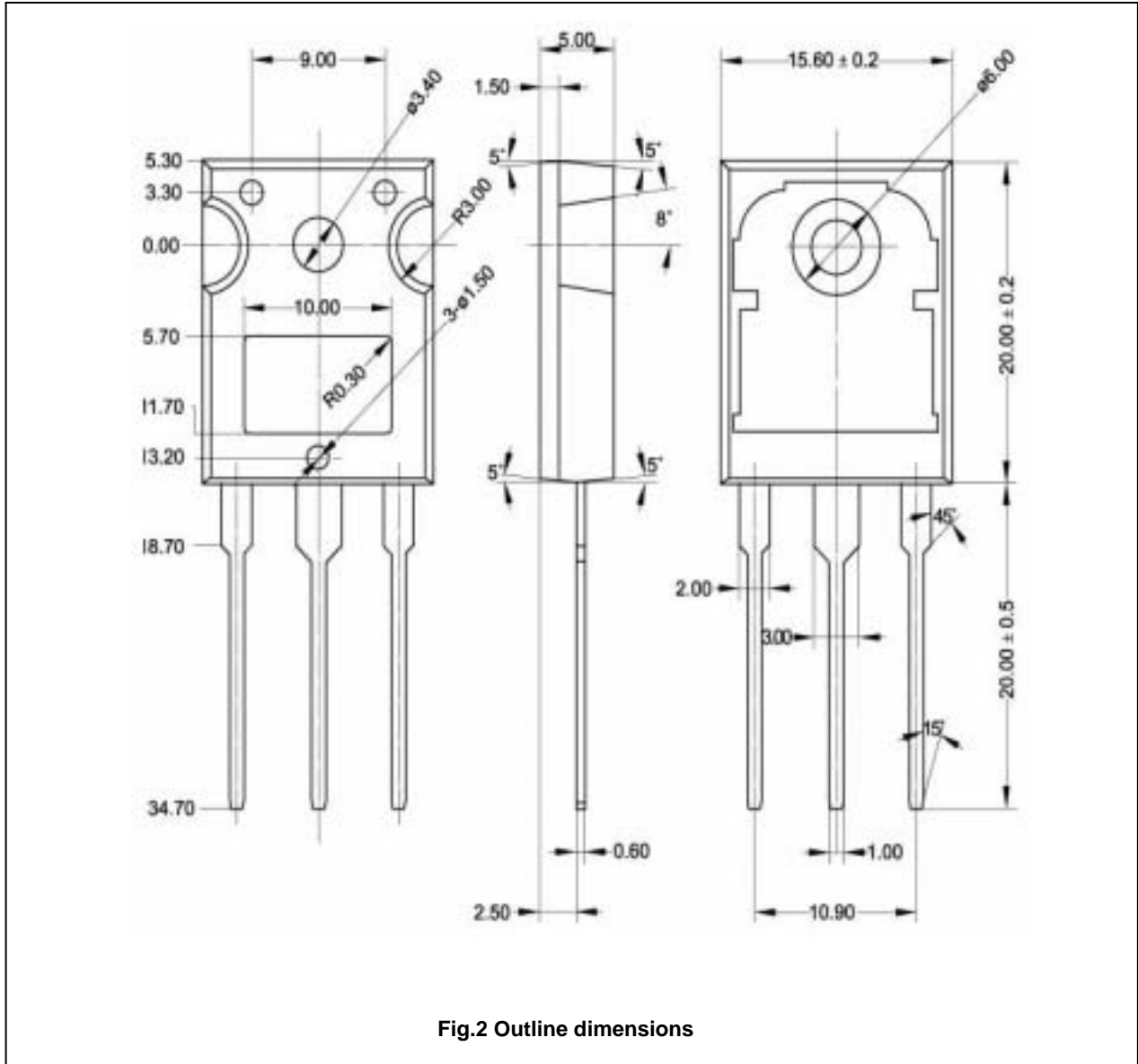


Fig.2 Outline dimensions