

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

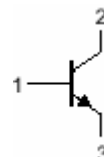


Fig.1 simplified outline (TO-247) and symbol

Absolute maximum ratings($T_c=25^\circ\text{C}$)

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

Tj=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

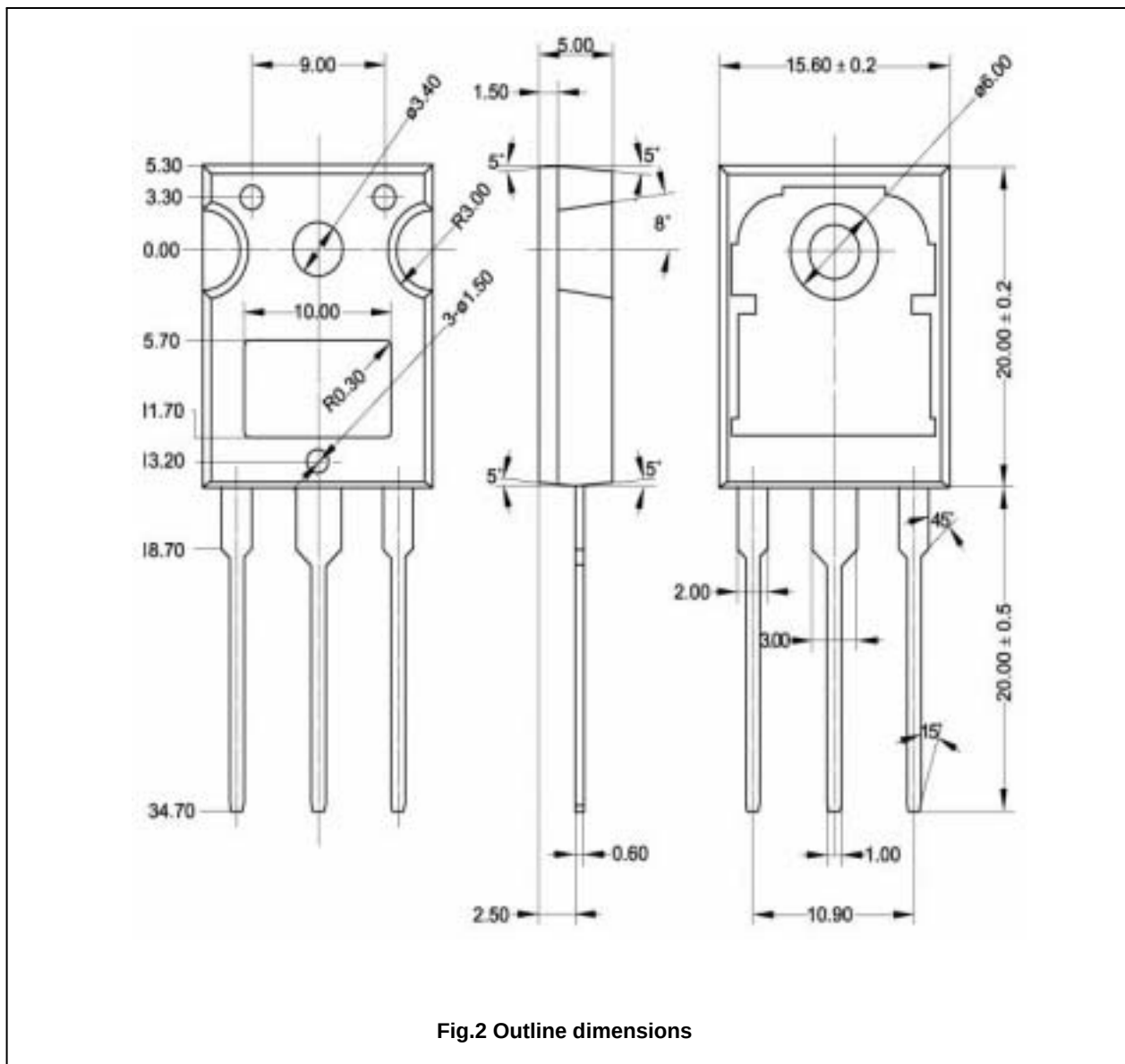


Fig.2 Outline dimensions