

Silicon NPN Power Transistors

2SC2939

DESCRIPTION

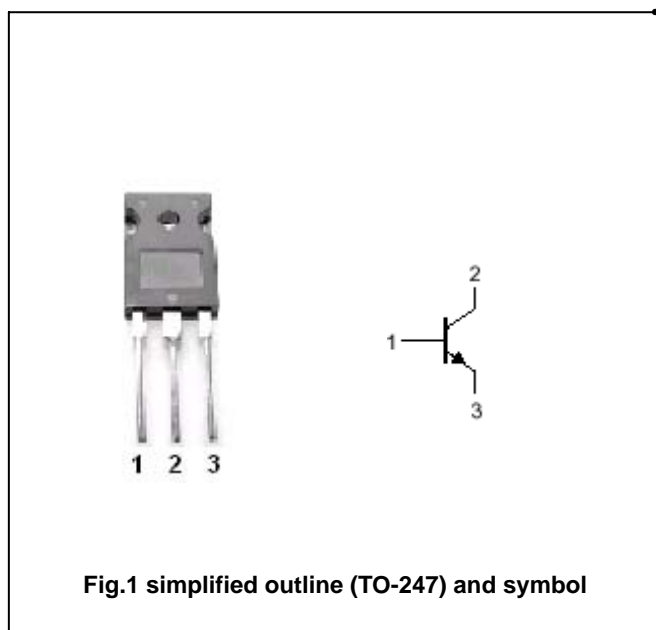
- With TO-247 package
- Switching power transistor
- High breakdown voltage

APPLICATIONS

- For switching regulator applications

PINNING

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

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_{CM}	Collector current-Peak		20	A
P_D	Total power dissipation	$T_c=25^\circ\text{C}$	80	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

 $T_j=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.1\text{A}; I_B=0$	400			V
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=5\text{A}; I_B=1\text{A}$			1.0	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=5\text{A}; I_B=1\text{A}$			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	$I_C=5\text{A}; V_{CE}=2\text{V}$	10		50	
h_{FE-2}	DC current gain	$I_C=1\text{mA}; V_{CE}=2\text{V}$	5			
f_T	Transition frequency	$I_C=1\text{A}; V_{CE}=10\text{V}$		20		MHz

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PACKAGE OUTLINE

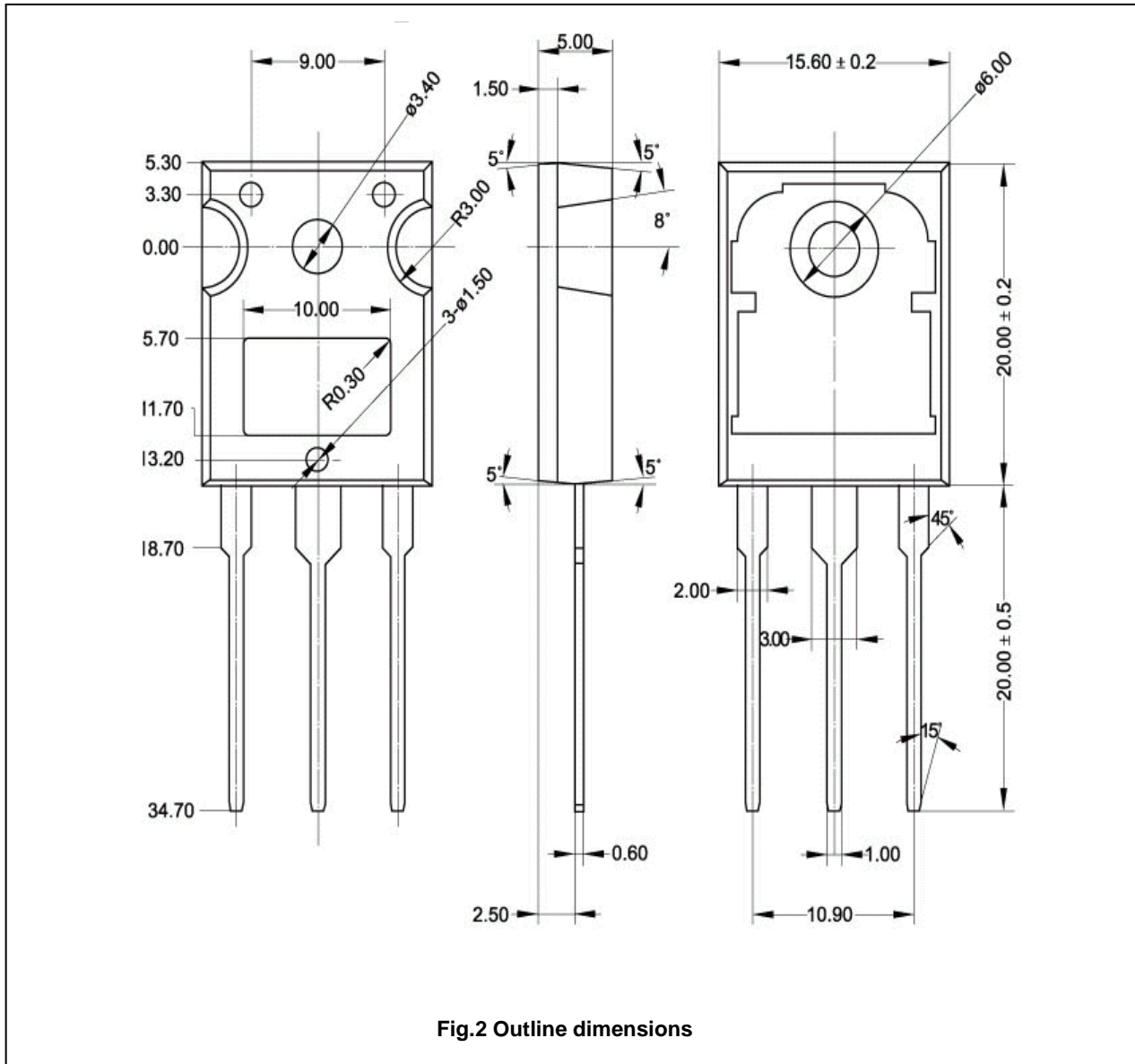


Fig.2 Outline dimensions