

Silicon NPN Power Transistors

2SC2939

DESCRIPTION

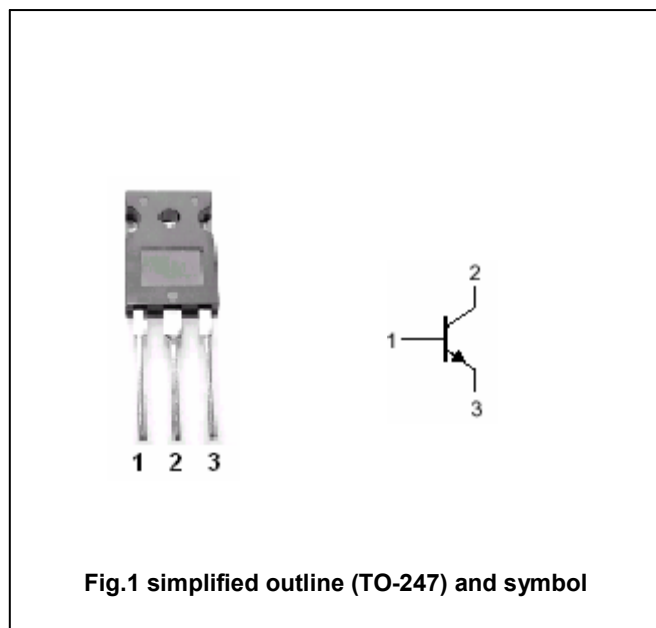
- With TO-247 package
- Switching power transistor
- High breakdown voltage

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°C 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 _{CE(sat)}	Collector-emitter saturation voltage	I _C =5A; I _B =1A			1.0	V
V _{BE(sat)}	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	10		50	
h _{FE-2}	DC current gain	I _C =1mA; V _{CE} =2V	5			
f _T	Transition frequency	I _C =1A; V _{CE} =10V		20		MHz

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