

Silicon NPN Power Transistors

2SC3210

DESCRIPTION

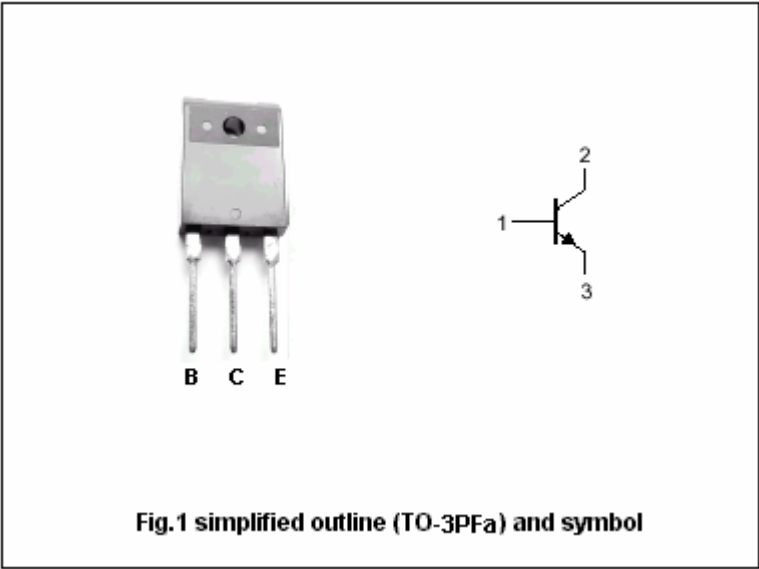
- With TO-3PFa package
- Low collector saturation voltage
- High breakdown voltage

APPLICATIONS

- For high speed switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings(Ta=25°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		10	A
I_{CM}	Collector current-peak		20	A
I_B	Base current		5	A
P_C	Collector power dissipation	$T_C=25^{\circ}C$	100	W
		$T_a=25^{\circ}C$	3	
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-55~150	°C

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.2A; L=25mH$	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	$V_{CB}=500V; I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V; I_C=0$			100	μA
h_{FE-1}	DC current gain	$I_C=0.1A; V_{CE}=5V$	15			
h_{FE-2}	DC current gain	$I_C=5A; V_{CE}=5V$	8			
f_T	Transition frequency	$I_C=0.5A; V_{CE}=10V$		11		MHz
Switching times						
t_{on}	Turn-on time	$I_C=5A; V_{CC}=100V$ $I_{B1}=-I_{B2}=1A$			1.0	μs
t_{stg}	Storage time				2.5	μs
t_f	Fall time				1.0	μs

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PACKAGE OUTLINE

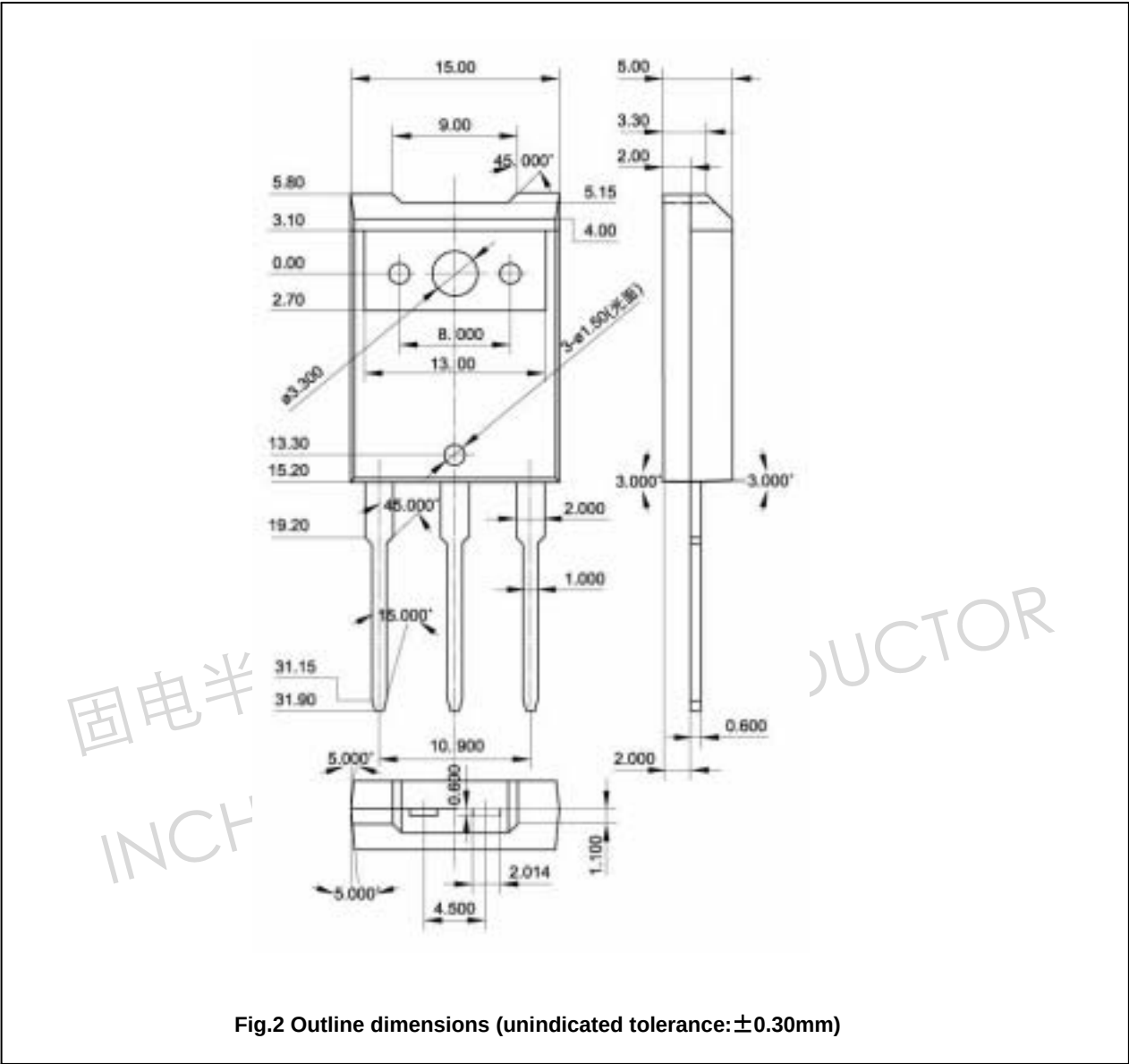


Fig.2 Outline dimensions (unindicated tolerance: $\pm 0.30\text{mm}$)