

Silicon NPN Power Transistors

2SC3212 2SC3212A

DESCRIPTION

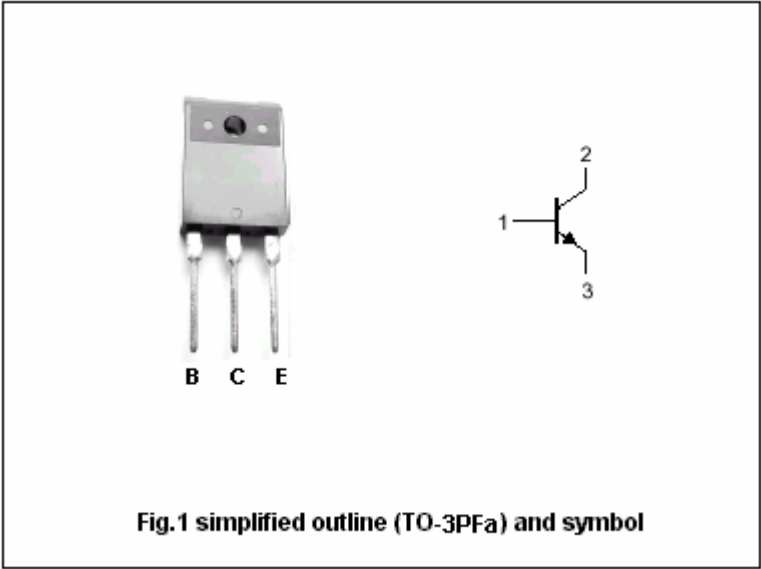
- With TO-3PFa package
- Low collector saturation voltage
- High V_{CBO}
- High speed switching

APPLICATIONS

- For high speed switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC3212	Open emitter	800	V
		2SC3212A		900	
V_{CEO}	Collector-emitter voltage		Open base	500	V
V_{EBO}	Emitter-base voltage		Open collector	8	V
I_C	Collector current			7	A
I_{CM}	Collector current-peak			15	A
I_B	Base current			4	A
P_C	Collector power dissipation	$T_C=25$		100	W
		$T_a=25$		3	
T_j	Junction temperature			150	
T_{stg}	Storage temperature			-55~150	

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CHARACTERISTICS

Tj=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage		$I_C=0.2A; L=25mH$	500			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	2SC3212	$V_{CB}=800V; I_E=0$			100	μA
		2SC3212A	$V_{CB}=900V; I_E=0$				
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		$I_C=0.5A; V_{CE}=10V; f=1MHz$		3.5		MHz

Switching times

t_{on}	Turn-on time	2SC3212	$I_C=5A; V_{CC}=200V$ $I_{B1}=-I_{B2}=1A$			1.0	μs
		2SC3212A				1.2	
t_{stg}	Storage time					2.5	μs
t_f	Fall time	2SC3212				1.0	μs
		2SC3212A				1.2	

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PACKAGE OUTLINE

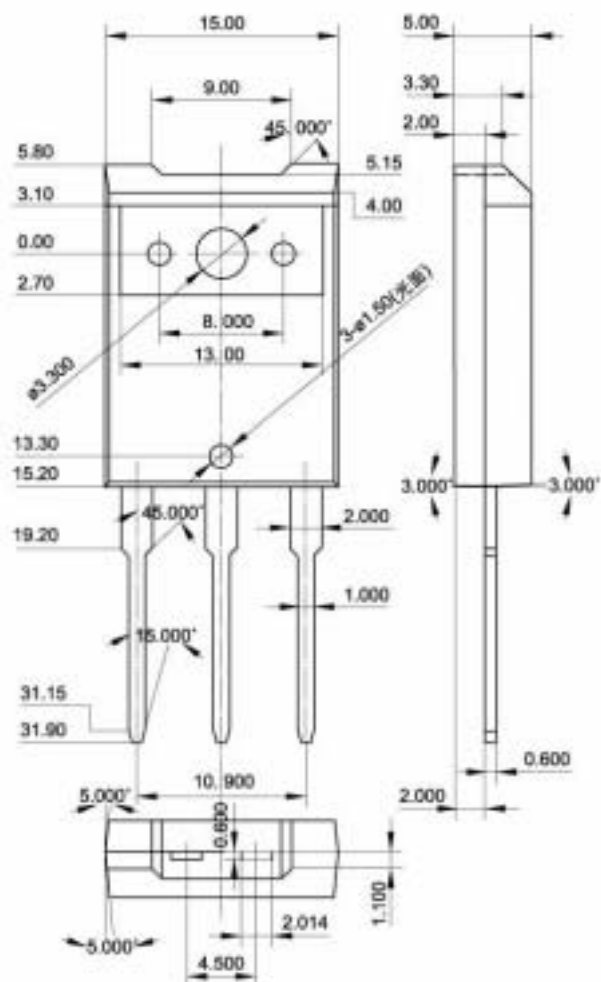


Fig.2 Outline dimensions (unindicated tolerance: $\pm 0.30\text{mm}$)