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

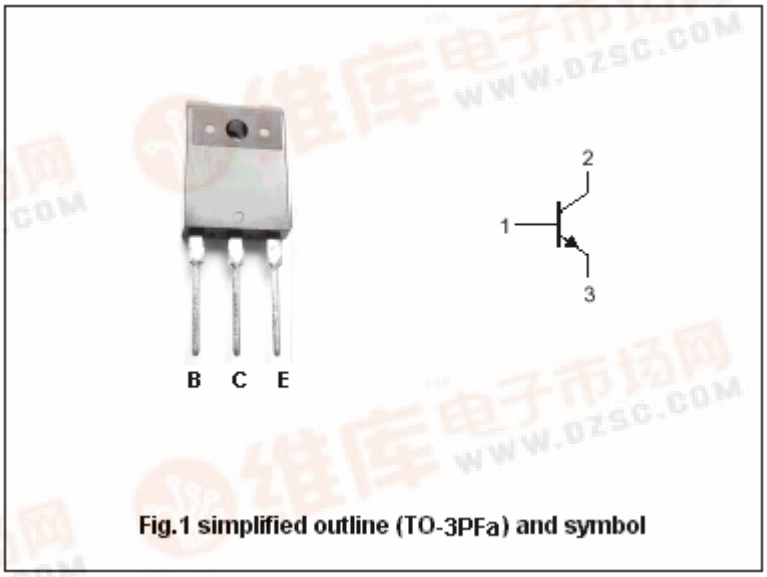

Fig.1 simplified outline (TO-3PFa) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings(Ta=25℃)

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	℃

Silicon NPN Power Transistors 2SC3212 2SC3212A

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	

Silicon NPN Power Transistors 2SC3212 2SC3212A

PACKAGE OUTLINE

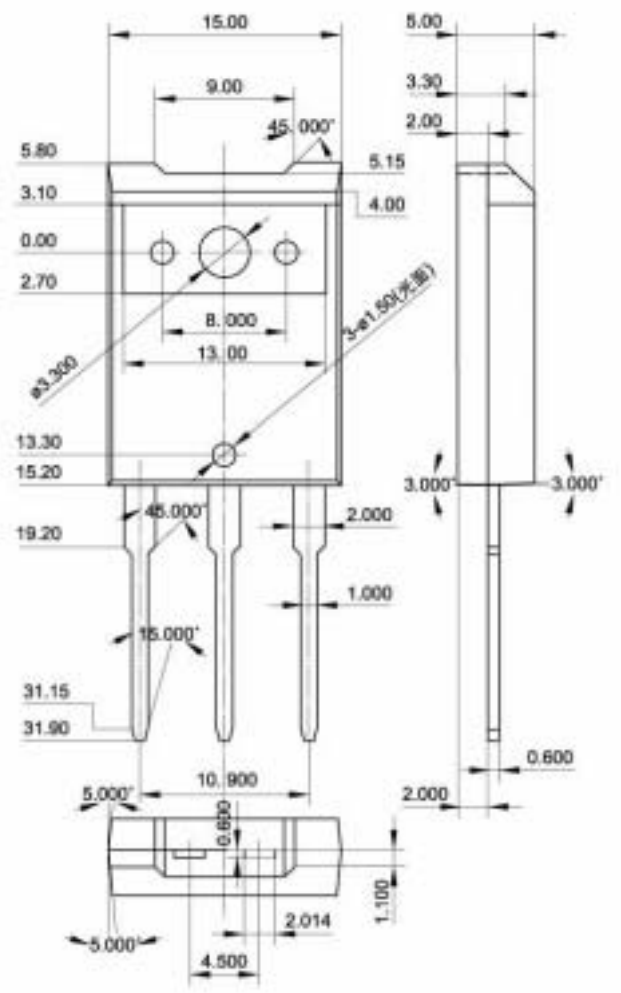

Fig.2 Outline dimensions (unindicated tolerance:±0.30mm)