

Silicon NPN Power Transistors

2SC3012

DESCRIPTION

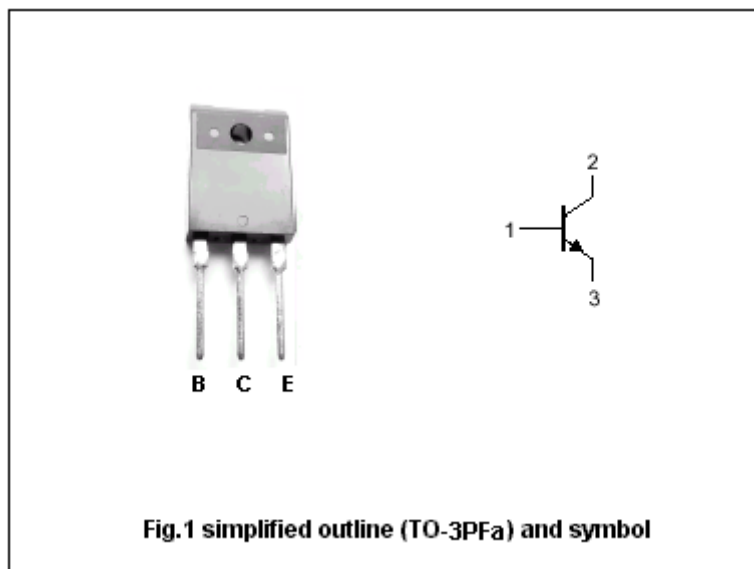
- With TO-3PFa package
- Complement to type 2SA1232
- High transition frequency

APPLICATIONS

- Audio frequency power amplifier.

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	130	V
V_{CEO}	Collector-emitter voltage	Open base	130	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		10	A
I_{CM}	Collector current-peak		15	A
P_C	Collector power dissipation	$T_C = 25^\circ\text{C}$	100	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 _{CEsat}	Collector-emitter saturation voltage	I _C =5A; I _B =0.5A		0.6	1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A; I _B =0.5A		1.3	2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =130V; I _E =0			50	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =3V; I _C =0			50	μ A
h _{FE-1}	DC current gain	I _C =2A; V _{CE} =5V	60		320	
h _{FE-2}	DC current gain	I _C =5A; V _{CE} =5V	40			
C _{ob}	Output capacitance	I _E =0; V _{CB} =10V; f=1MHz		150		pF
f _T	Transition frequency	I _C =1A; V _{CE} =5V		60		MHz

◆ h_{FE-1} Classifications

R	Q	P
60-120	100-200	160-320

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PACKAGE OUTLINE

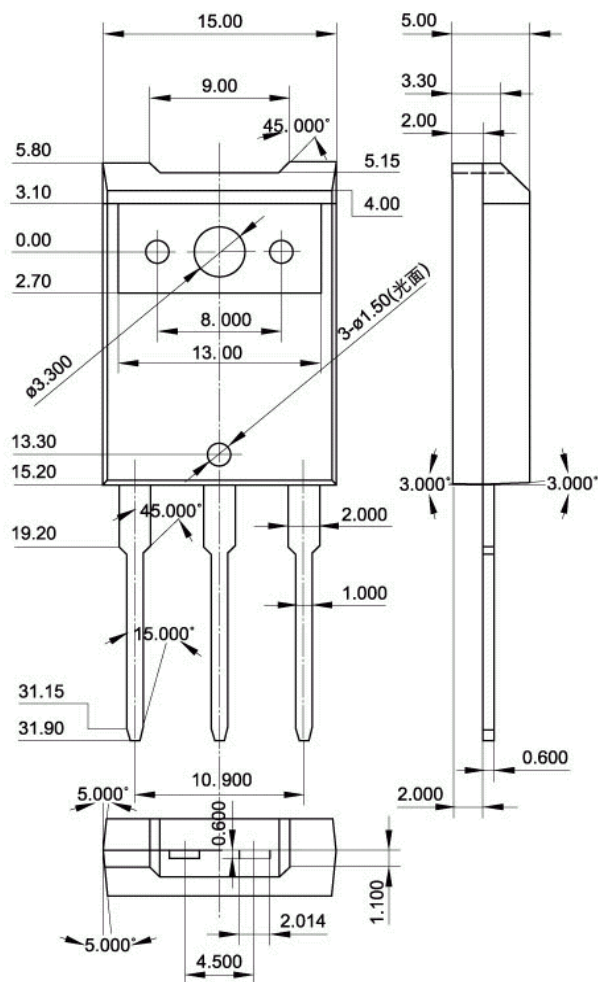


Fig.2 Outline dimensions (unindicated tolerance: ± 0.30 mm)