

Silicon NPN Power Transistors

2SC3907

DESCRIPTION

- With TO-3P(I) package
- Complement to type 2SA1516

APPLICATIONS

- Audio and general purpose power amplifier applications
- Recommend for 80W high fidelity audio frequency amplifier output stage

PINNING

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

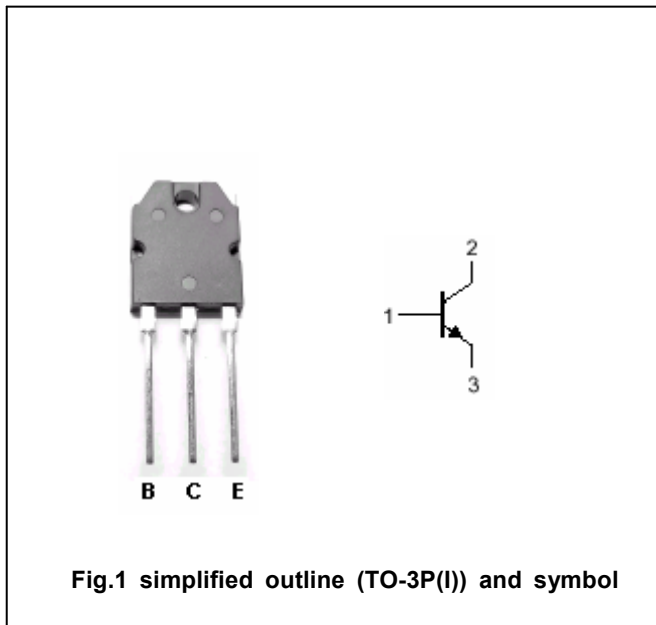


Fig.1 simplified outline (TO-3P(I)) and symbol

Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	180	V
V _{CEO}	Collector-emitter voltage	Open base	180	V
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		12	A
I _B	Base current		1.2	A
P _C	Collector power dissipation	T _C =25°C	130	W
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
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=50mA; I_B=0$	180			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=8A; I_B=0.8A$		0.3	2.0	V
V_{BE}	Base-emitter voltage	$I_C=7A; V_{CE}=5V$		1.0	1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=180V; I_E=0$			5	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V; I_C=0$			5	μA
h_{FE-1}	DC current gain	$I_C=1A; V_{CE}=5V$	55		180	
h_{FE-2}	DC current gain	$I_C=7A; V_{CE}=5V$	35			
f_T	Transition frequency	$I_C=1A; V_{CE}=5V$		30		MHz
C_{OB}	Output capacitance	$I_E=0; V_{CB}=10V; f=1MHz$		270		pF

◆ h_{FE-1} classifications

R	O
55-110	90-180

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PACKAGE OUTLINE

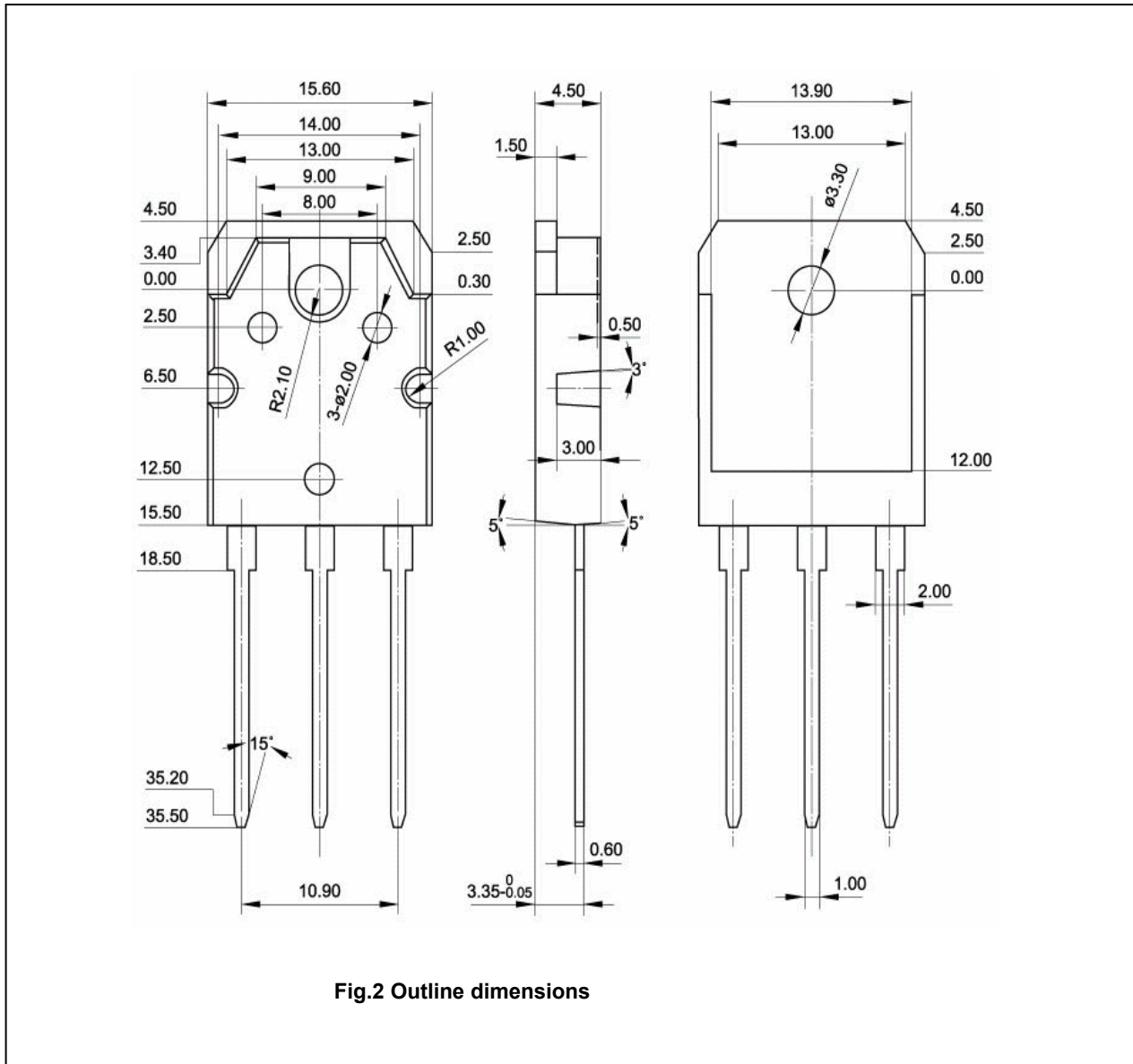


Fig.2 Outline dimensions