

Silicon NPN Power Transistors

2SC3907

DESCRIPTION

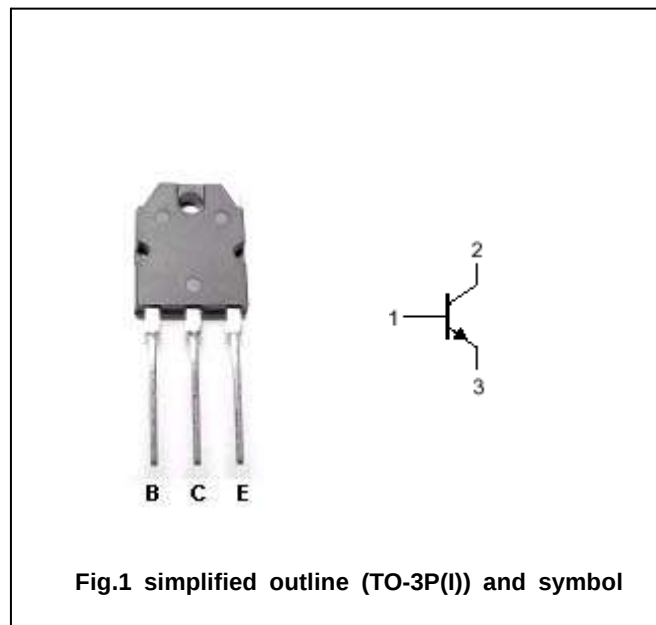
- With TO-3P(I) package
- Complement to type 2SA1516

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



Absolute maximum ratings (Ta=25℃)

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	$T_C=25^{\circ}\text{C}$	130	W
T_j	Junction temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-55~150	$^{\circ}\text{C}$

Silicon NPN Power Transistors**2SC3907****CHARACTERISTICS** $T_j=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=50\text{mA}; I_B=0$	180			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=8\text{A}; I_B=0.8\text{A}$		0.3	2.0	V
V_{BE}	Base-emitter voltage	$I_C=7\text{A}; V_{CE}=5\text{V}$		1.0	1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=180\text{V}; I_E=0$			5	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5\text{V}; I_C=0$			5	μA
h_{FE-1}	DC current gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	55		180	
h_{FE-2}	DC current gain	$I_C=7\text{A}; V_{CE}=5\text{V}$	35			
f_T	Transition frequency	$I_C=1\text{A}; V_{CE}=5\text{V}$		30		MHz
C_{OB}	Output capacitance	$I_E=0; V_{CB}=10\text{V}; f=1\text{MHz}$		270		pF

◆ **h_{FE-1} classifications**

R	O
55-110	90-180

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PACKAGE OUTLINE

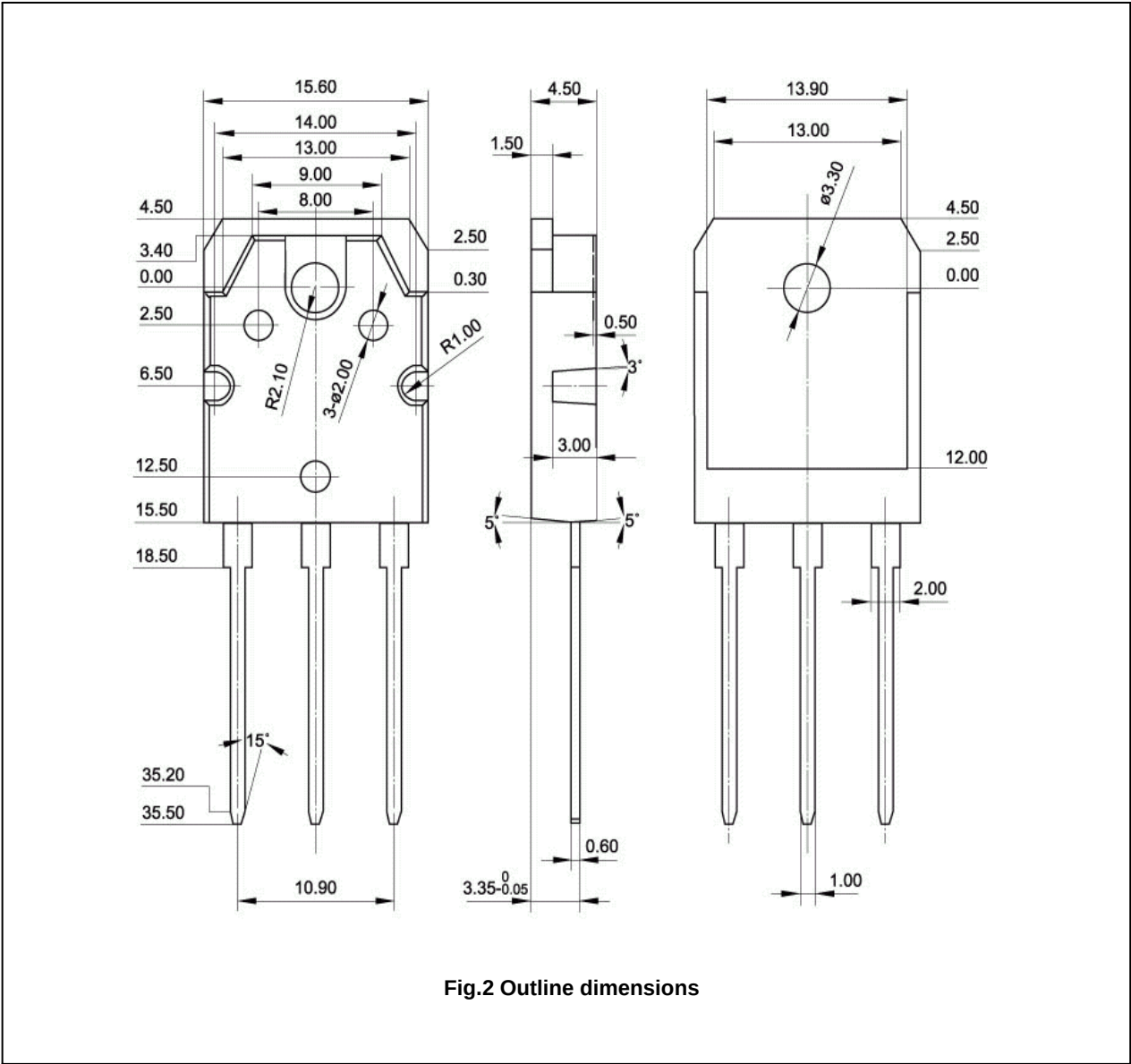


Fig.2 Outline dimensions