

Silicon NPN Power Transistors

2SD716

DESCRIPTION

- With TO-3P(I) package
- Complement to type 2SB686

APPLICATIONS

- Power amplifier applications
- Recommend for 30~35W high fidelity audio frequency amplifier output stage

PINNING

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

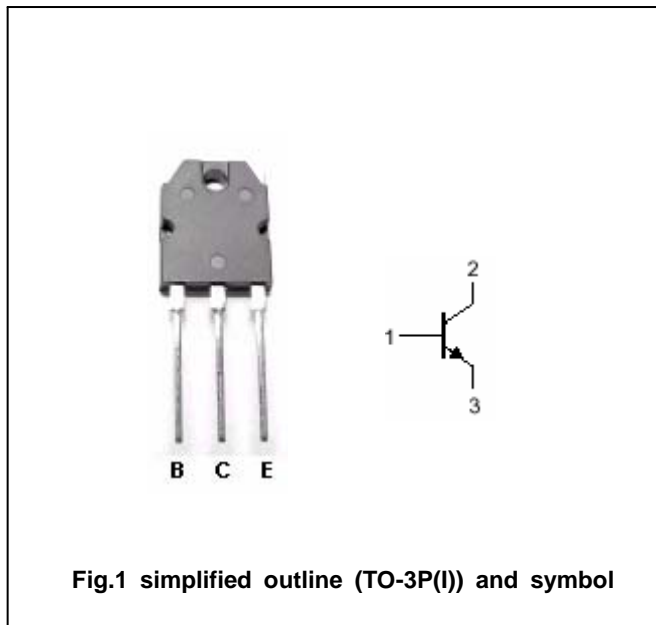


Fig.1 simplified outline (TO-3P(I)) and symbol

Absolute maximum ratings(Ta=25 )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	100	V
$V_{CEO}$	Collector-emitter voltage	Open base	100	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		6	A
$I_E$	Emitter current		-6	A
$P_T$	Total power dissipation	$T_C=25$	60	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

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## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =50mA, I <sub>B</sub> =0	100			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =10mA, I <sub>C</sub> =0	5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4A; I <sub>B</sub> =0.4A			2.0	V
V <sub>BE</sub>	Base-emitter voltage	I <sub>C</sub> =4A; V <sub>CE</sub> =5V			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =100V; I <sub>E</sub> =0			10	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			10	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A; V <sub>CE</sub> =5V	55		160	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =1A; V <sub>CE</sub> =5V		12		MHz
C <sub>ob</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =10V; f=1MHz		100		pF

◆ h<sub>FE</sub> Classifications

R	O
55-110	80-160

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PACKAGE OUTLINE

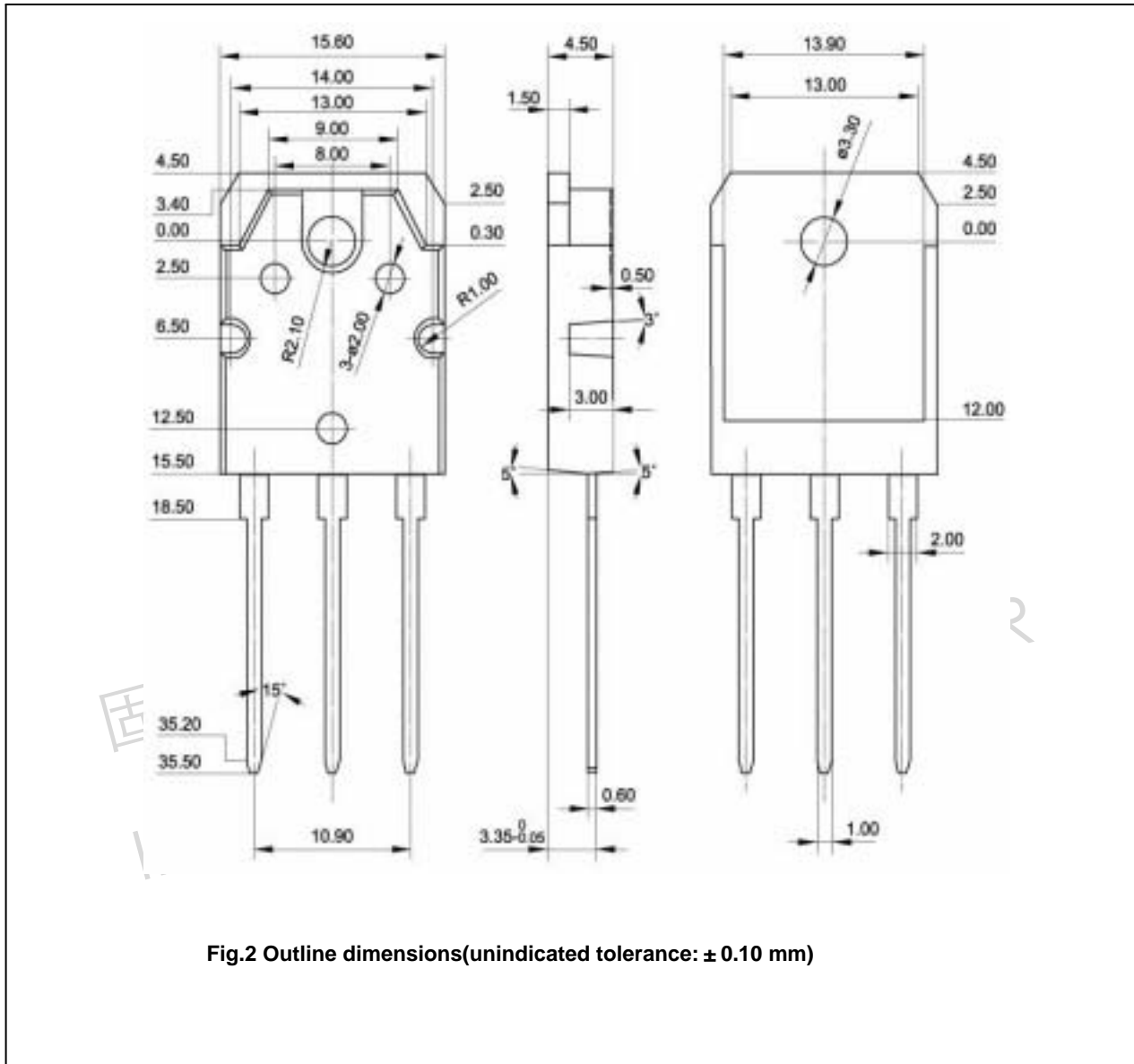


Fig.2 Outline dimensions(unindicated tolerance:  $\pm 0.10$  mm)