

Silicon NPN Power Transistors

2SD844

DESCRIPTION

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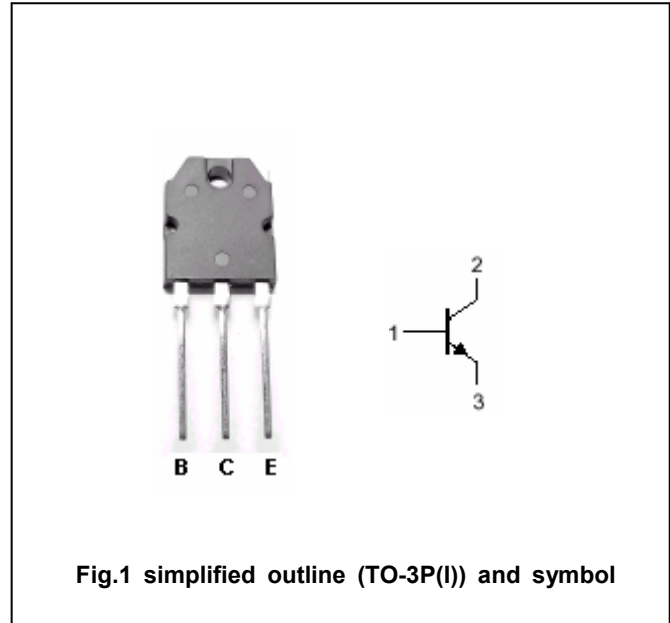
- With TO-3P(I) package
- Complement to type 2SB754
- High collector current : $I_C=7A$
- Low collector saturation voltage
- High power dissipation

APPLICATIONS

- High current switching applications
- Power amplifier applications

PINNING

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

Absolute maximum ratings($T_a=25^\circ$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	50	V
V_{CEO}	Collector-emitter voltage	Open base	50	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		7	A
I_E	Emitter current		-7	A
P_C	Collector power dissipation	$T_a=25^\circ$	2.5	W
		$T_C=25^\circ$	60	
T_j	Junction temperature		150	$^\circ$
T_{stg}	Storage temperature		-55~150	$^\circ$

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =50mA ; I _B =0	50			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10mA; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =4.0A; I _B =0.4A			0.4	V
V _{BE}	Base-emitter voltage	I _C =4A ; V _{CE} =1V			1.2	V
I _{CBO}	Collector cut-off current	V _{CB} =50V; I _E =0			10	μA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			10	μA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =1V	70		240	
h _{FE-2}	DC current gain	I _C =4A ; V _{CE} =1V	30			
f _T	Transition frequency	I _C =1A ; V _{CE} =5V		15		MHz
C _{OB}	Collector output capacitance	f=1MHz ; V _{CB} =10V		250		pF

◆ h_{FE-1} Classifications

O	Y
70-140	120-240

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PACKAGE OUTLINE

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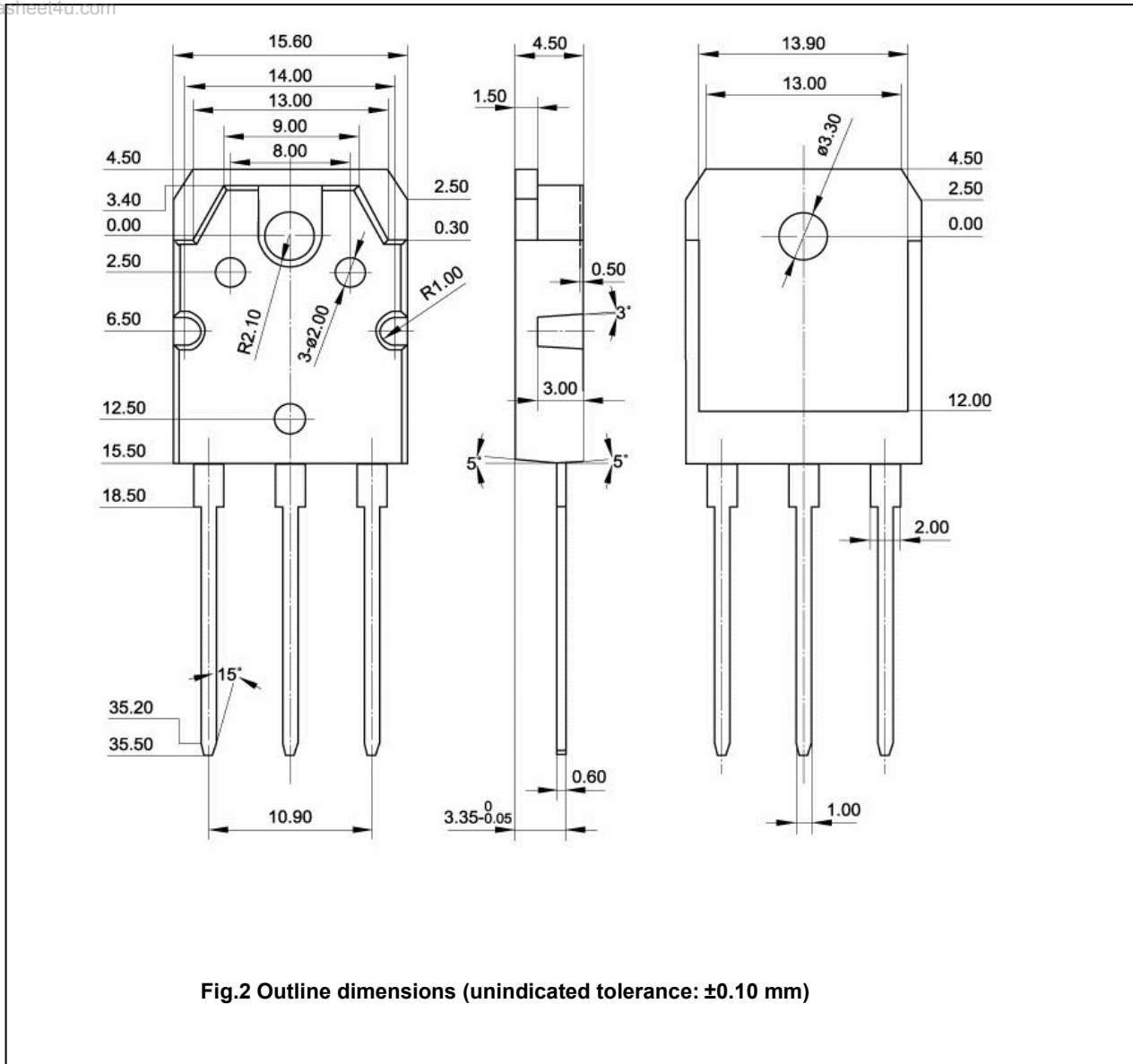


Fig.2 Outline dimensions (unindicated tolerance: ±0.10 mm)