Silicon NPN Power Transistors 2SD844

DESCRIPTION

·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

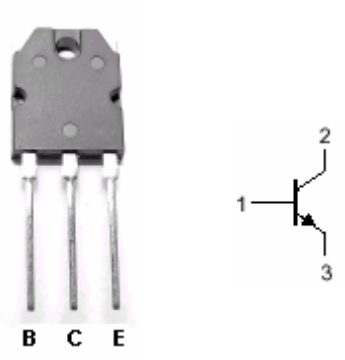

Fig.1 simplified outline (TO-3P(I)) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	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□	2.5	W
		T_C=25□	60	
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-55~150	□

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CHARACTERISTICS

Tj=25□ unless otherwise specified

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

PACKAGE OUTLINE

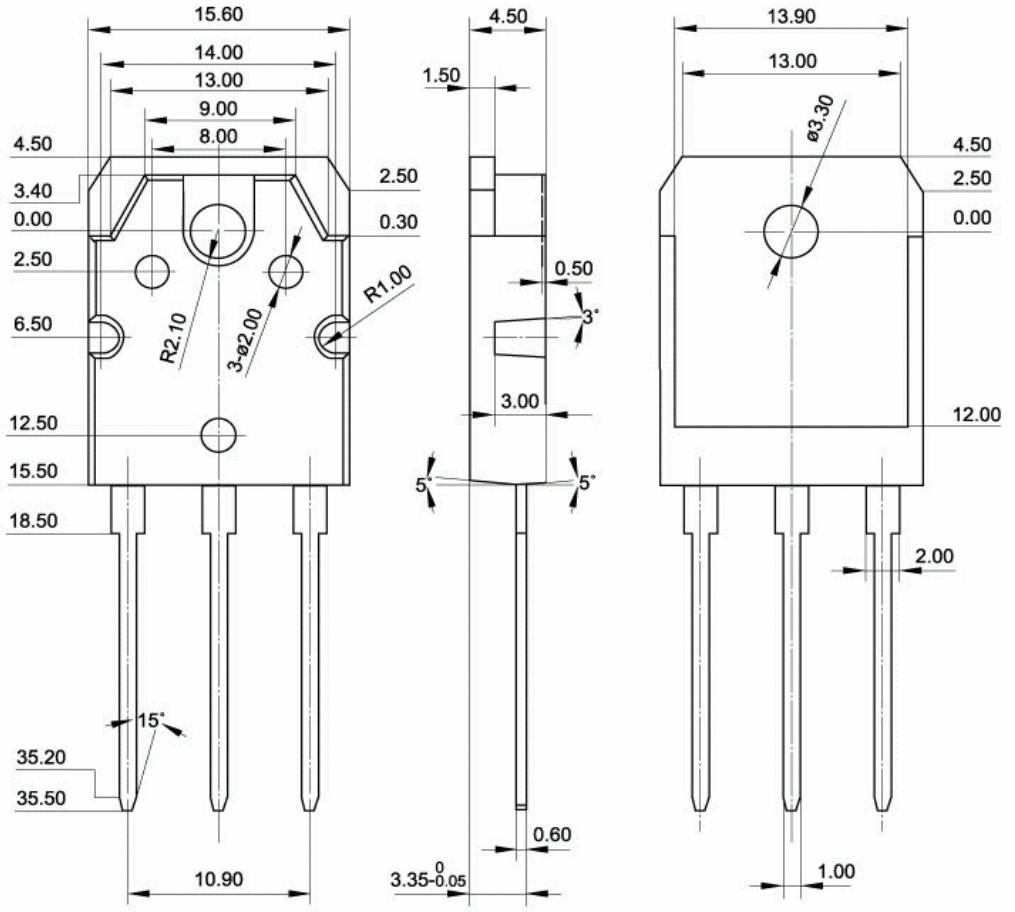

Fig.2 Outline dimensions (unindicated tolerance: ±0.10 mm)