

Silicon NPN Power Transistors

2SC2944

DESCRIPTION

- With TO-3PN package
- High voltage,high speed switching
- High reliability
- Low saturation voltage

APPLICATIONS

- Color & B/W TV power supply
- Active power filter
- Industrial use power supply
- General purpose power amplifiers

PINNING

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

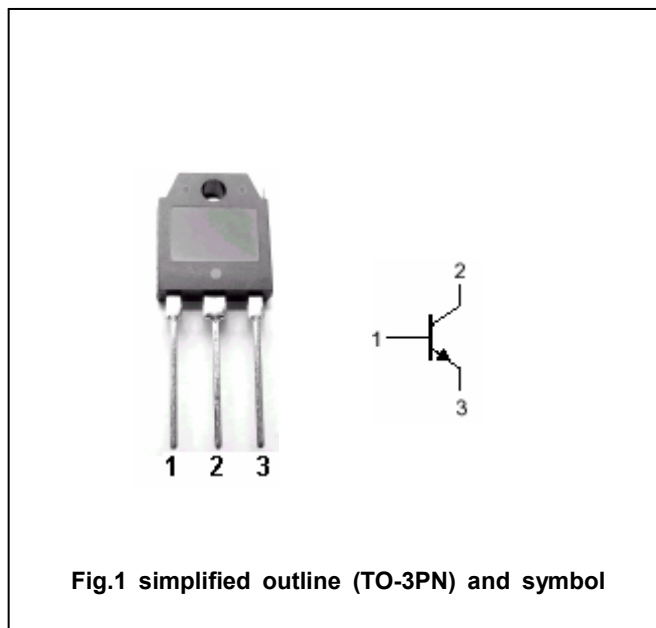


Fig.1 simplified outline (TO-3PN) and symbol

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	250	V
V_{CEO}	Collector-emitter voltage	Open base	200	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current (DC)		15	A
I_B	Base current (DC)		5	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	100	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal resistance junction case	1.25	$^\circ\text{C}/\text{W}$

Silicon NPN Power Transistors

2SC2944

CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA ; I _B =0	200			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =0.1mA ; I _C =0	7			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =0.1mA ; I _E =0	250			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =6A ; I _B =1.2A			0.8	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =6A ; I _B =1.2A			1.2	V
I _{CBO}	Collector cut-off current	V _{CB} =250V ; I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V ; I _C =0			0.1	mA
h _{FE}	DC current gain	I _C =2A ; V _{CE} =5V	20		80	

Switching times

t _{on}	Turn-on time	I _C =10A ; I _{B1} =-I _{B2} =2A R _L =5Ω P _w =20μs, Duty≤2%			0.8	μs
t _s	Storage time				1.5	μs
t _f	Fall time				0.4	μs

Silicon NPN Power Transistors

2SC2944

PACKAGE OUTLINE

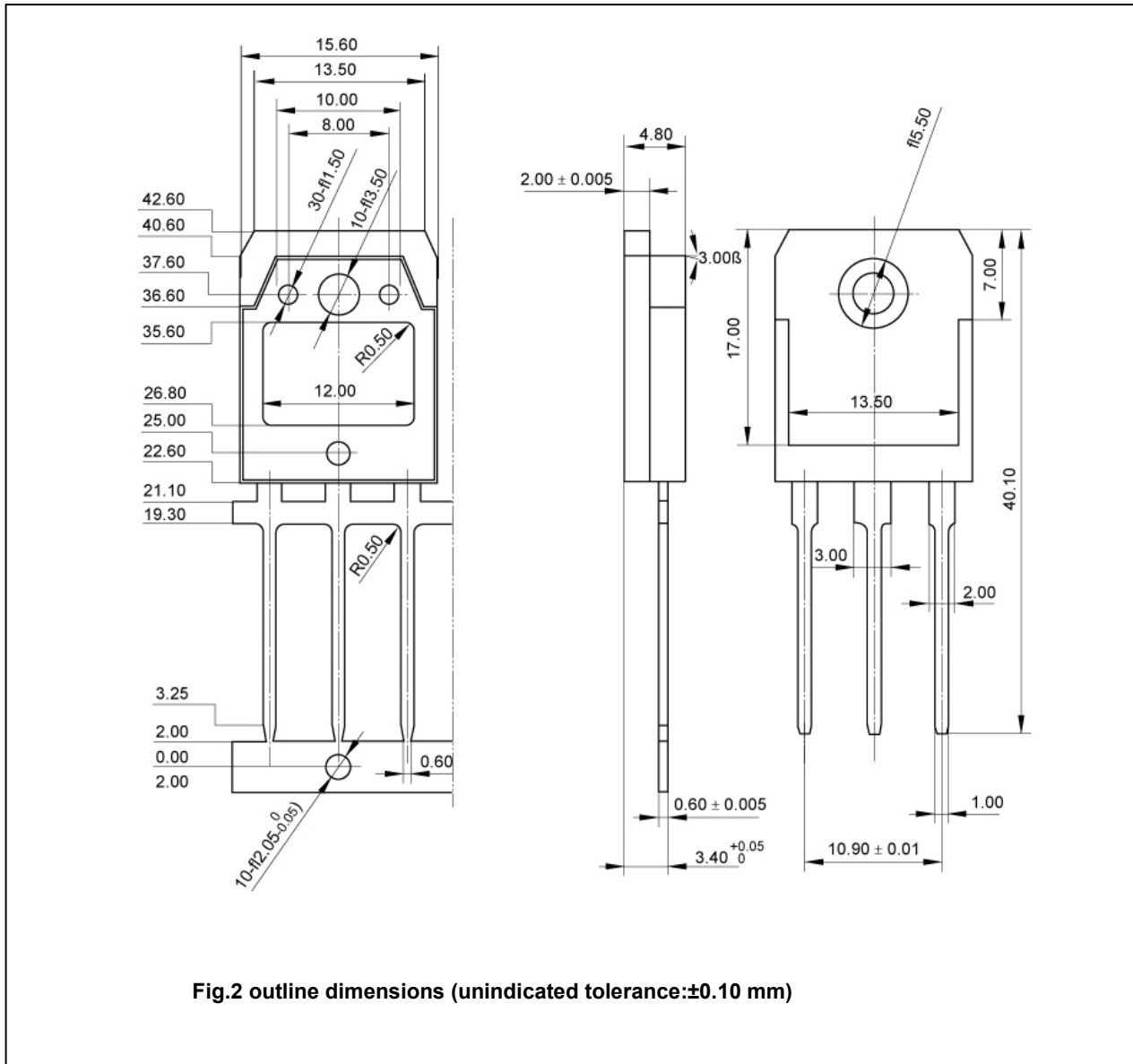


Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)