

Silicon NPN Power Transistors

2SC2751

DESCRIPTION

- With TO-3N package
- High voltage ,high speed

APPLICATIONS

- For use in high voltage ,high speed and power switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

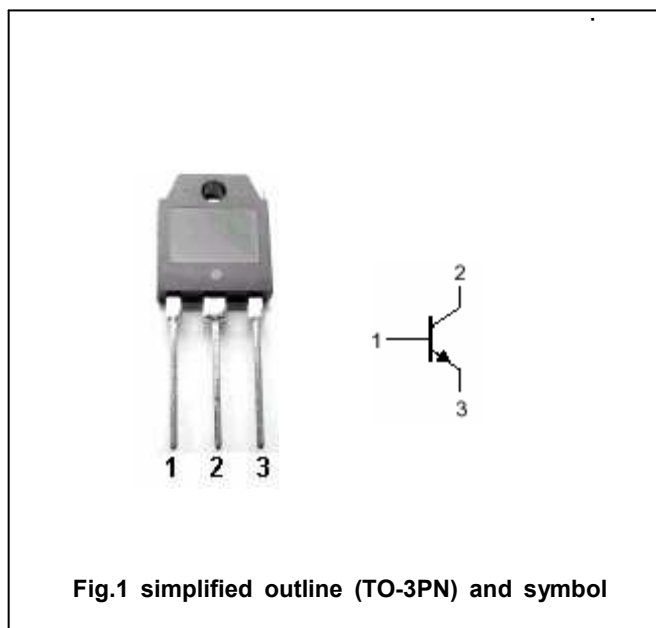


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	500	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		15	A
I_{CM}	Collector current-peak		30	A
I_B	Base current		7.5	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	120	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

Silicon NPN Power Transistors

2SC2751

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =10A ; I _B =2A; L=50μH	400			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =10A ; I _B =2A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =10A ; I _B =2A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =400V; I _E =0			100	μA
I _{CEX}	Collector cut-off current	V _{CE} =400V; V _{BE(off)} =-1.5V T _a =125°C			100 1.0	μA mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			10	μA
h _{FE-1}	DC current gain	I _C =2A ; V _{CE} =5V	15		80	
h _{FE-2}	DC current gain	I _C =5A ; V _{CE} =5V	10			
h _{FE-3}	DC current gain	I _C =10A ; V _{CE} =5V	7			

Switching times

t _{on}	Turn-on time	I _C =10A; I _{B1} =-I _{B2} =2A R _L =15Ω; V _{CC} ≈150V			1.0	μs
t _s	Storage time				2.5	μs
t _f	Fall time				0.7	μs

◆ h_{FE-1} Classifications

N	R	O	Y
15-30	20-40	30-60	40-80

Silicon NPN Power Transistors

2SC2751

PACKAGE OUTLINE

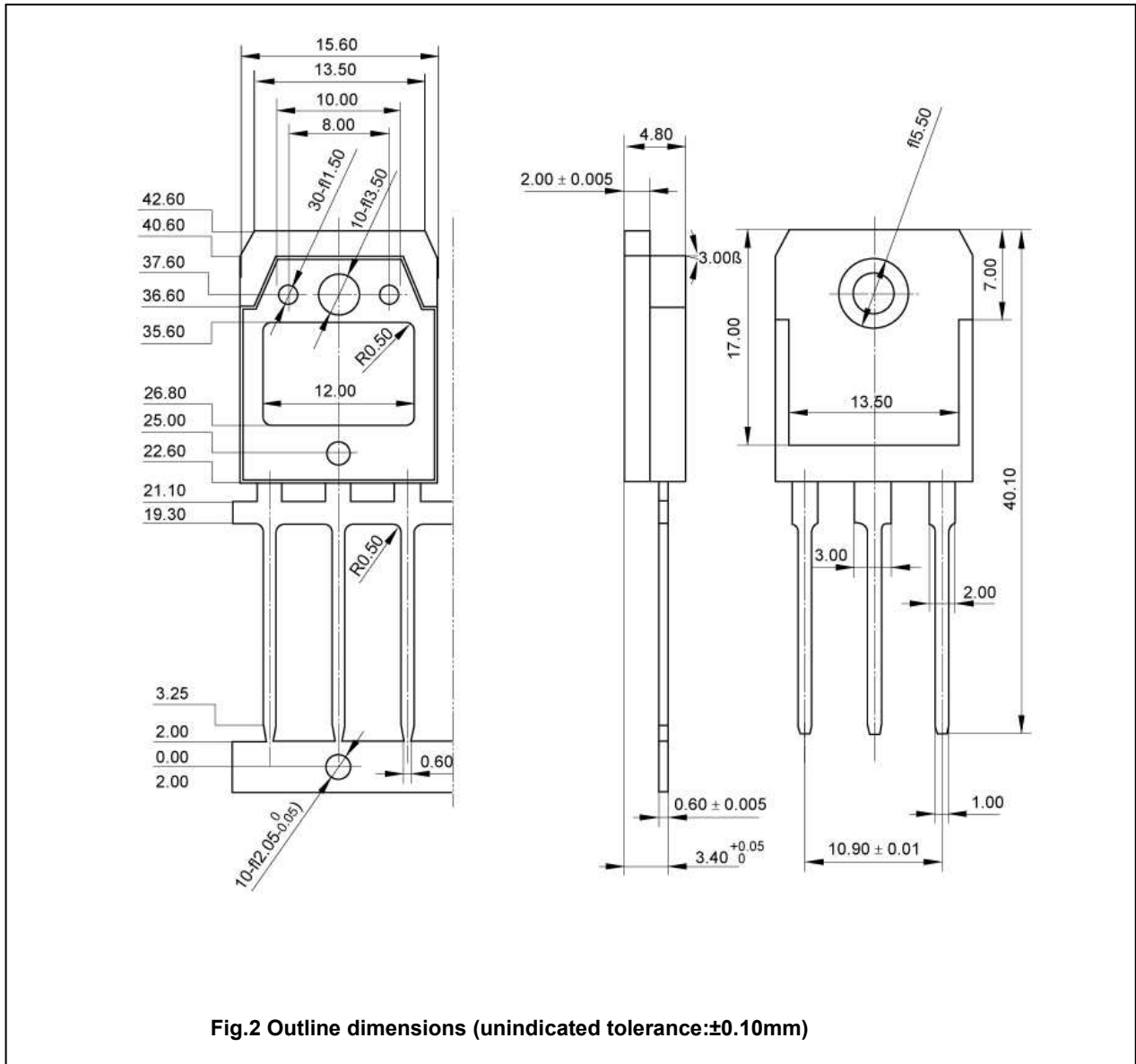


Fig.2 Outline dimensions (unindicated tolerance:±0.10mm)