

Silicon NPN Power Transistors

2SC3686

DESCRIPTION

- High breakdown voltage
- High reliability (adoption of HVP process).
- Fast speed
- Adoption of MBIT process.
- With TO-3PN package

APPLICATIONS

- Ultrahigh-definition color display horizontal deflection output.

PINNING

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

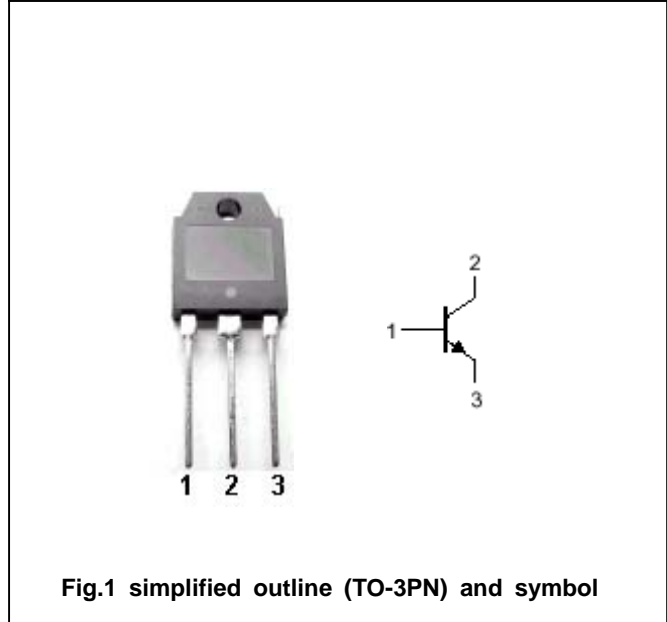


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings(Ta=)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1500	V
V _{CEO}	Collector-emitter voltage	Open base	800	V
V _{EBO}	Emitter-base voltage	Open collector	6	V
I _C	Collector current		7	A
I _{CP}	Collector current-pulse		16	A
P _C	Collector power dissipation	T _C =25	120	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-55~150	

Silicon NPN Power Transistors

2SC3686

CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-emitter sustaining voltage	I _C =100mA; I _B =0	800			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A I _B =1.2A			5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A ;I _B =1.2A			1.5	V
I _{CES}	Collector cut-off current	V _{CB} =1500V; I _E =0			1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =4V; I _C =0			1	mA
h _{FE}	DC current gain	I _C =1A ; V _{CE} =5V	8			

Switching times

t _{stg}	Storage time	I _C =4A; V _{CC} =5V I _{B1} =0.8A; I _{B2} =-1.6A			3	μs
t _f	Fall time			0.1	0.2	μs

Silicon NPN Power Transistors

2SC3686

PACKAGE OUTLINE

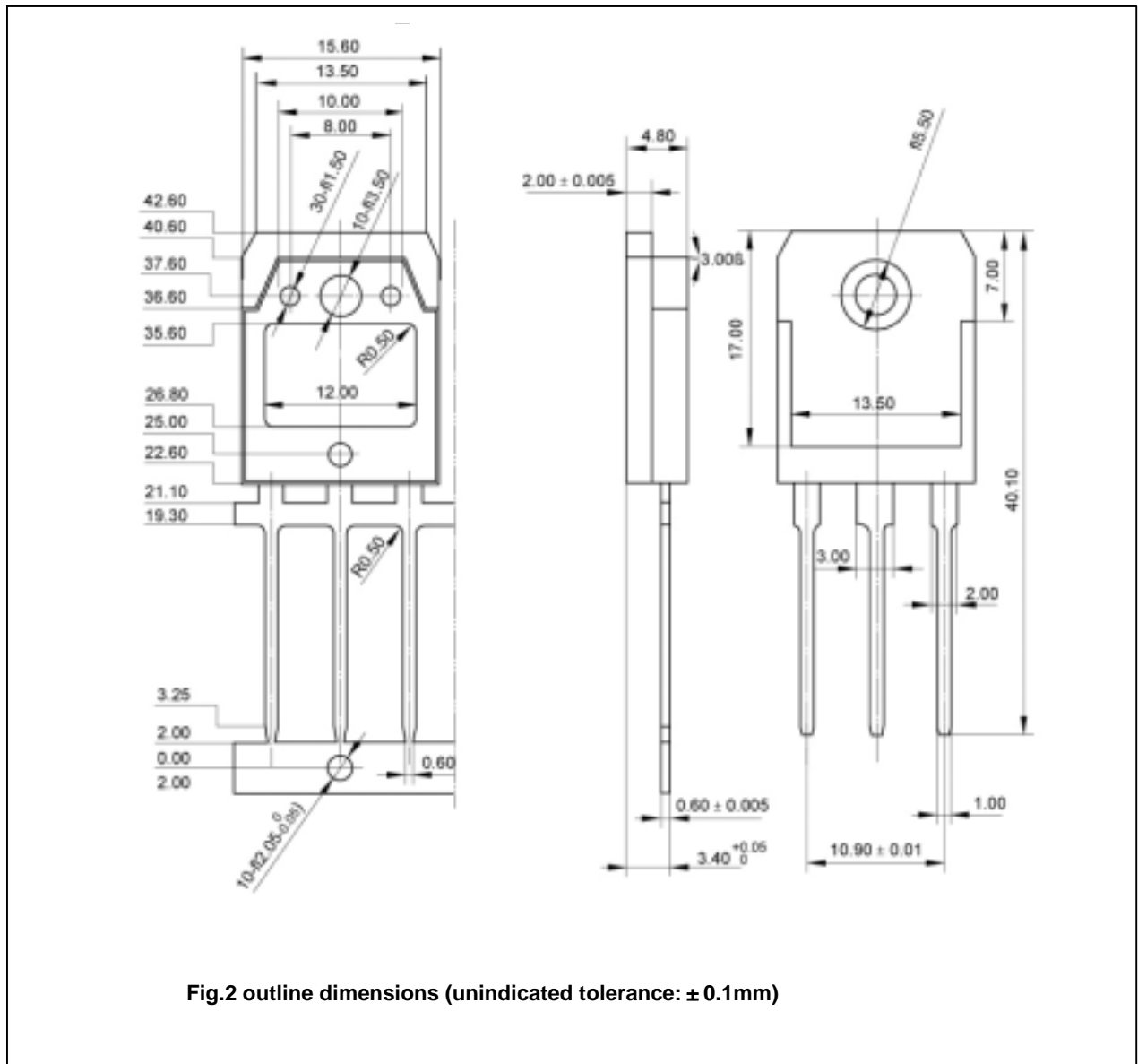


Fig.2 outline dimensions (unindicated tolerance: ± 0.1mm)