

Silicon NPN Power Transistors

2SC1985 2SC1986

DESCRIPTION

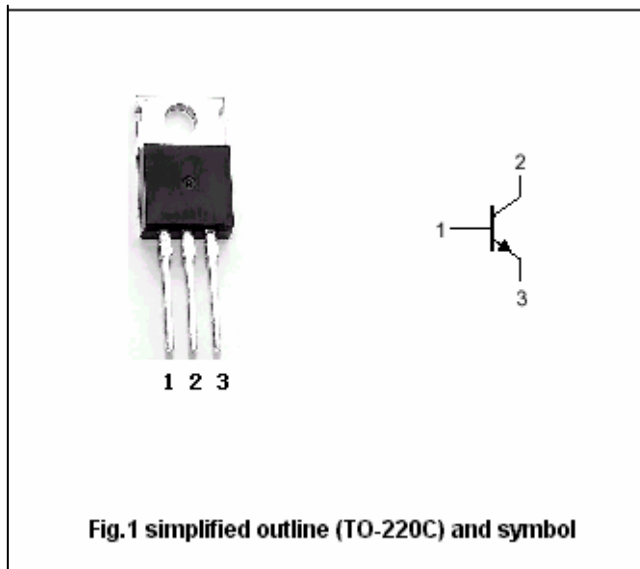
- With TO-220 package
- Complement to type 2SA770/771
- Low collector saturation voltage

APPLICATIONS

- For general and industrial purpose applications

PINNING

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



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SC1985	80	V
		2SC1986	100	
V _{CEO}	Collector-emitter voltage	2SC1985	60	V
		2SC1986	80	
V _{EBO}	Emitter-base voltage	Open collector	6	V
I _C	Collector current		6	A
I _B	Base current		3	A
P _C	Collector power dissipation	T _C =25°C	40	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	2SC1985	I _C =25mA, I _B =0	60			V
		2SC1986		80			
V _{CEsat}	Collector-emitter saturation voltage		I _C =3A; I _B =0.3A			1.0	V
I _{CBO}	Collector cut-off current	2SC1985	V _{CB} =80V; I _E =0			1.0	mA
		2SC1986	V _{CB} =100V; I _E =0				
I _{EBO}	Emitter cut-off current		V _{EB} =6V; I _C =0			1.0	mA
h _{FE}	DC current gain		I _C =1A; V _{CE} =4V	40			
f _T	Transition frequency		I _C =0.5A; V _{CE} =12V		10		MHz

Switching times

t _r	Rise time	I _C =3A; V _{CC} =9V I _{B1} =-I _{B2} =0.3A; R _L =3Ω		1.1		μs
t _{stg}	Storage time			1.8		μs
t _f	Fall time			0.55		μs

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PACKAGE OUTLINE

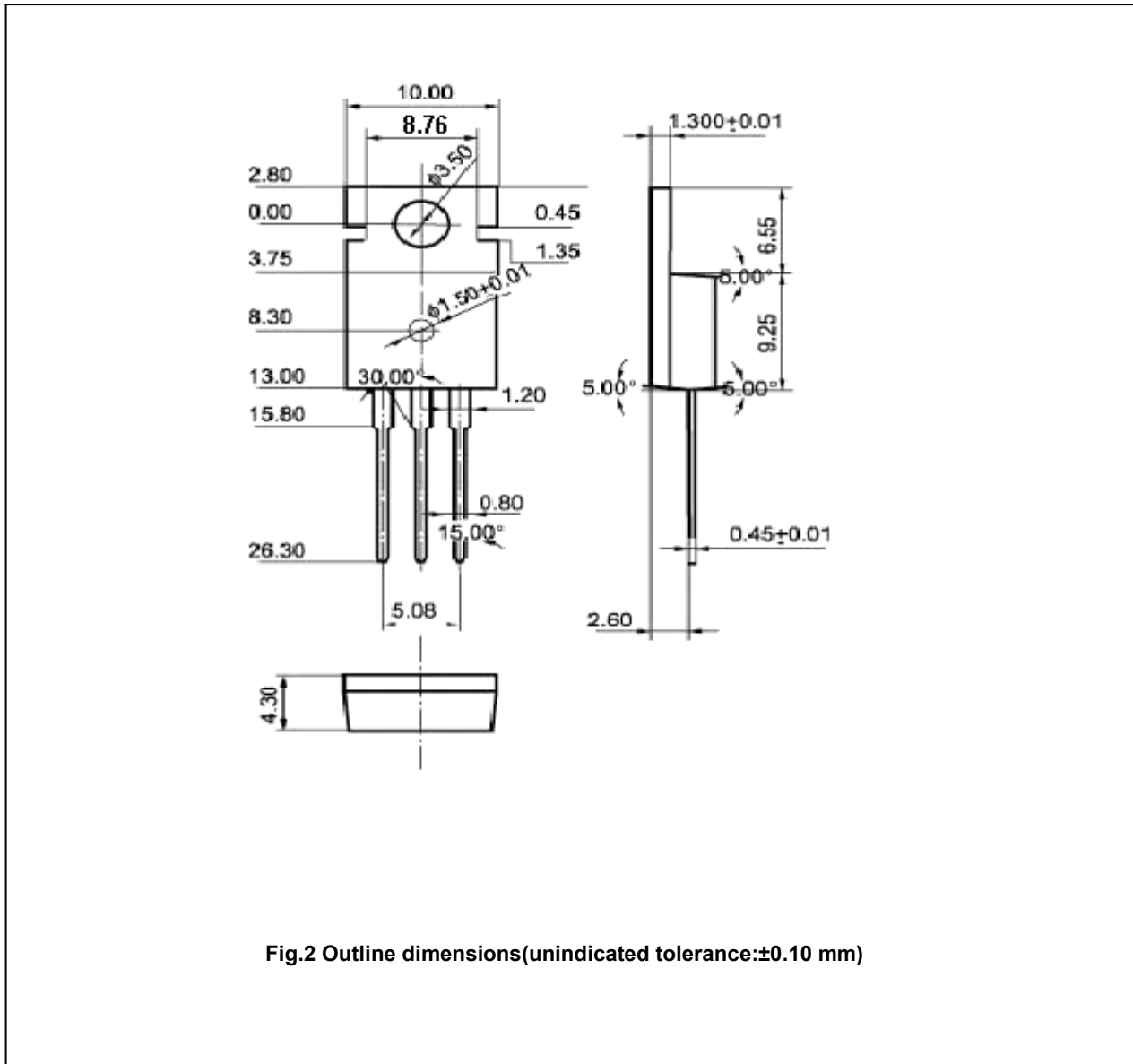


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)