

Silicon NPN Power Transistors

2N6288 2N6290 2N6292

DESCRIPTION

- With TO-220 package
- Complement to PNP type: 2N6107; 2N6109 ;2N6111

APPLICATIONS

- Power amplifier and switching circuits applications

PINNING

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

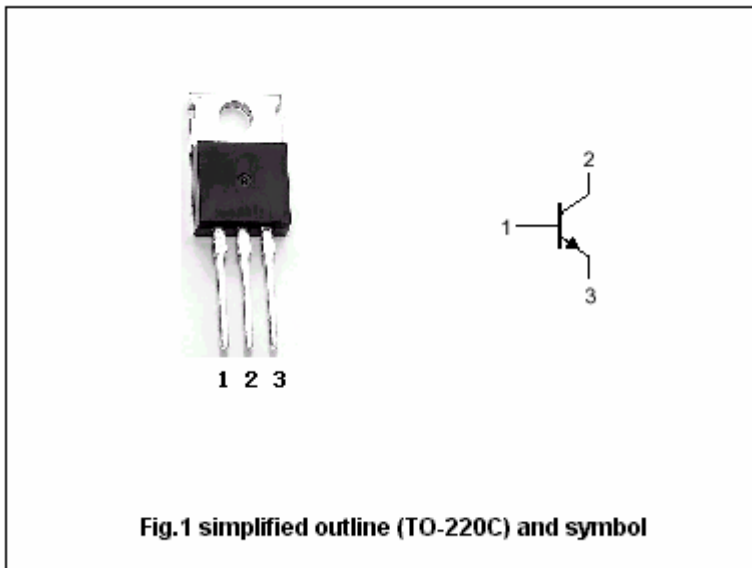


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2N6288	40	V
		2N6290	60	
		2N6292	80	
V _{CEO}	Collector-emitter voltage	2N6288	30	V
		2N6290	50	
		2N6292	70	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		7	A
I _{CM}	Collector current-peak		10	A
I _B	Base current		3	A
P _T	Total power dissipation	T _C =25	40	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance from junction to case	3.125	/W

Silicon NPN Power Transistors

2N6288 2N6290 2N6292

CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CE0(SUS)}	Collector-emitter sustaining voltage	2N6288	I _C =0.1A ; I _B =0	30			V
		2N6290		50			
		2N6292		70			
V _{CEsat-1}	Collector-emitter saturation voltage	2N6288	I _C =3A; I _B =0.3A		1.0	V	
		2N6290	I _C =2.5A; I _B =0.25A				
		2N6292	I _C =2A; I _B =0.2A				
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =7A; I _B =3A			3.5	V	
V _{BE-1}	Base-emitter on voltage	2N6288	I _C =3A ; V _{CE} =4V		1.5	V	
		2N6290	I _C =2.5A ; V _{CE} =4V				
		2N6292	I _C =2A ; V _{CE} =4V				
V _{BE-2}	Base-emitter on voltage	I _C =7A ; V _{CE} =4V			3.0	V	
I _{CEO}	Collector cut-off current	2N6288	V _{CE} =20V; I _B =0		1.0	mA	
		2N6290	V _{CE} =40V; I _B =0				
		2N6292	V _{CE} =60V; I _B =0				
I _{CEX}	Collector cut-off current	2N6288	V _{CE} =40V; V _{BE} =-1.5V V _{CE} =30V; V _{BE} =-1.5V, T _C =125		0.1 2.0	mA	
		2N6290	V _{CE} =60V; V _{BE} =-1.5V V _{CE} =50V; V _{BE} =-1.5V, T _C =125		0.1 2.0		
		2N6292	V _{CE} =80V; V _{BE} =-1.5V V _{CE} =70V; V _{BE} =-1.5V, T _C =125		0.1 2.0		
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1.0	mA	
h _{FE-1}	DC current gain	2N6288	I _C =3A ; V _{CE} =4V	30	150		
		2N6290	I _C =2.5A ; V _{CE} =4V				
		2N6292	I _C =2A ; V _{CE} =4V				
h _{FE-2}	DC current gain	I _C =7A ; V _{CE} =4V	2.3				
f _T	Transition frequency	I _C =0.5A ; V _{CE} =4V; f=1MHz	2.5			MHz	

Silicon NPN Power Transistors

2N6288 2N6290 2N6292

PACKAGE OUTLINE

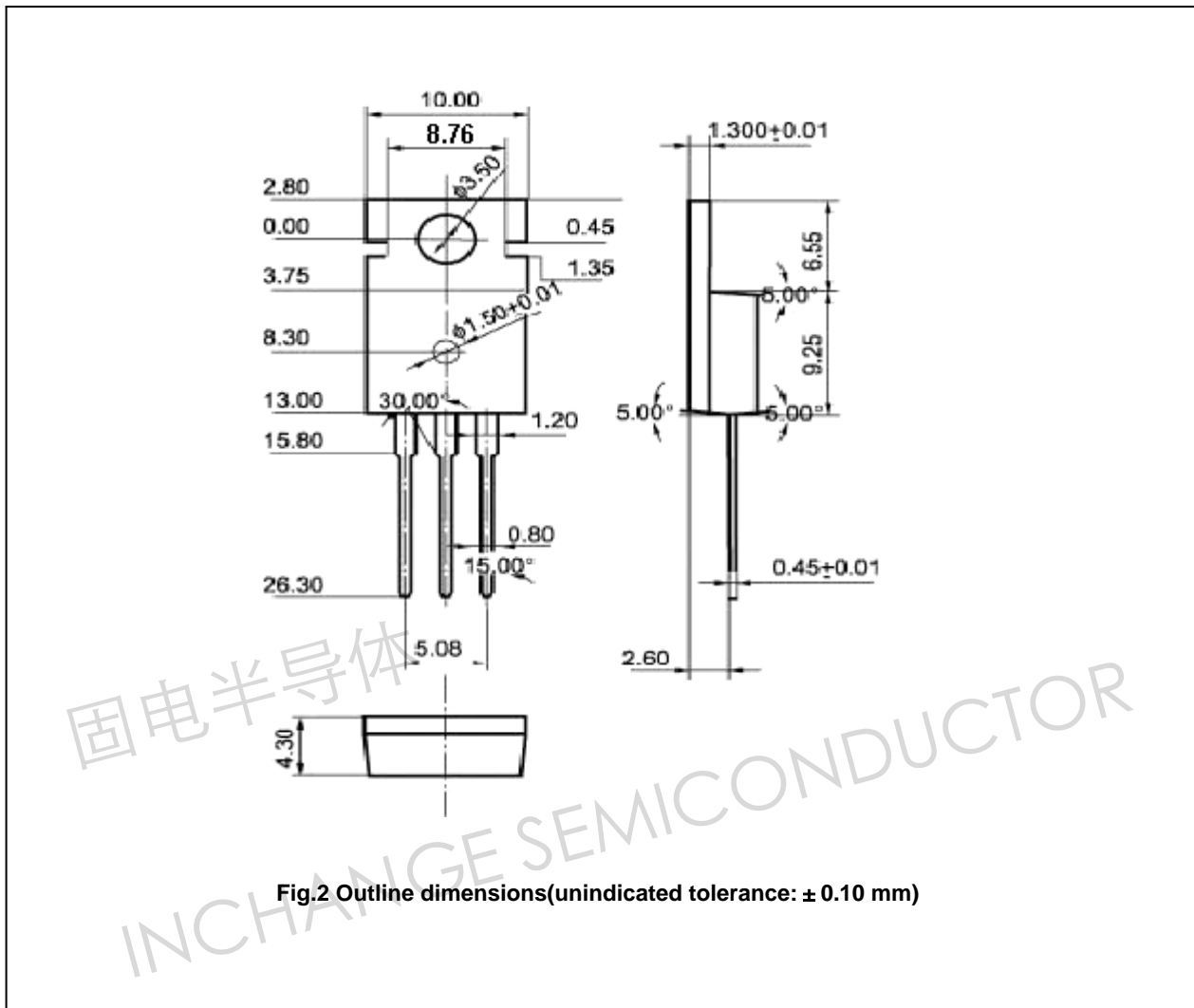


Fig.2 Outline dimensions(unindicated tolerance: ± 0.10 mm)