

Silicon PNP Power Transistors

2N6107 2N6109 2N6111

DESCRIPTION

- With TO-220 package
- Complement to NPN type:
2N6288; 2N6290 ;2N6292

APPLICATIONS

- Power amplifier and switching circuits applications

PINNING

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

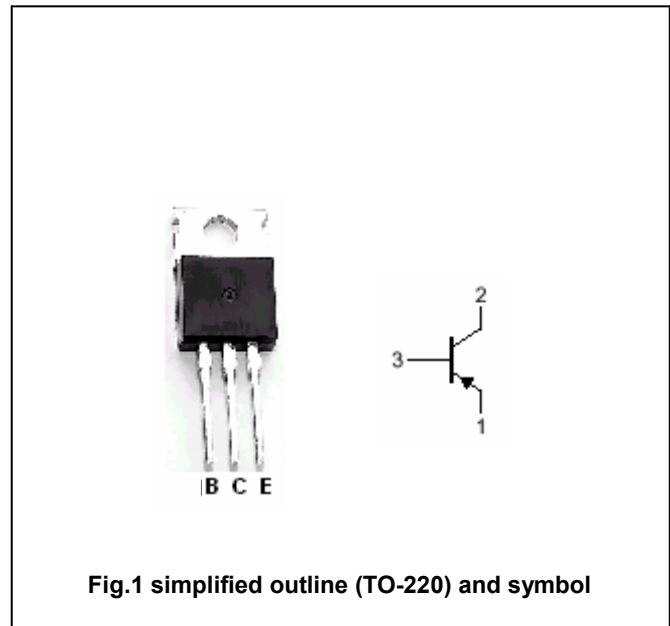


Fig.1 simplified outline (TO-220) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6107	-40	V
		2N6109	-60	
		2N6111	-80	
V_{CEO}	Collector-emitter voltage	2N6107	-30	V
		2N6109	-50	
		2N6111	-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	$T_C=25^\circ\text{C}$	40	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	3.125	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT		
V _{CE0(SUS)}	Collector-emitter sustaining voltage	2N6107	I _C =-0.1A ; I _B =0	-30			V	
		2N6109		-50				
		2N6111		-70				
V _{CEsat}	Collector-emitter saturation voltage	I _C =-7A; I _B =-3A			-3.5	V		
V _{BE}	Base-emitter on voltage	I _C =-7A ; V _{CE} =-4V			-3.0	V		
I _{CEO}	Collector cut-off current	2N6107				-1.0	mA	
		2N6109						V _{CE} =-40V; I _B =0
		2N6111						V _{CE} =-60V; I _B =0
I _{CEX}	Collector cut-off current	2N6107				-0.1 -2.0	mA	
		2N6109						V _{CE} =-60V; V _{BE} =-1.5V V _{CE} =-50V; V _{BE} =-1.5V, T _C =125°C
		2N6111						V _{CE} =-80V; V _{BE} =-1.5V V _{CE} =-70V; V _{BE} =-1.5V, T _C =125°C
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-1.0	mA		
h _{FE-1}	DC current gain	2N6107		30		150		
		2N6109						I _C =-2.5A ; V _{CE} =-4V
		2N6111						I _C =-3A ; 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	10			MHz		

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PACKAGE OUTLINE

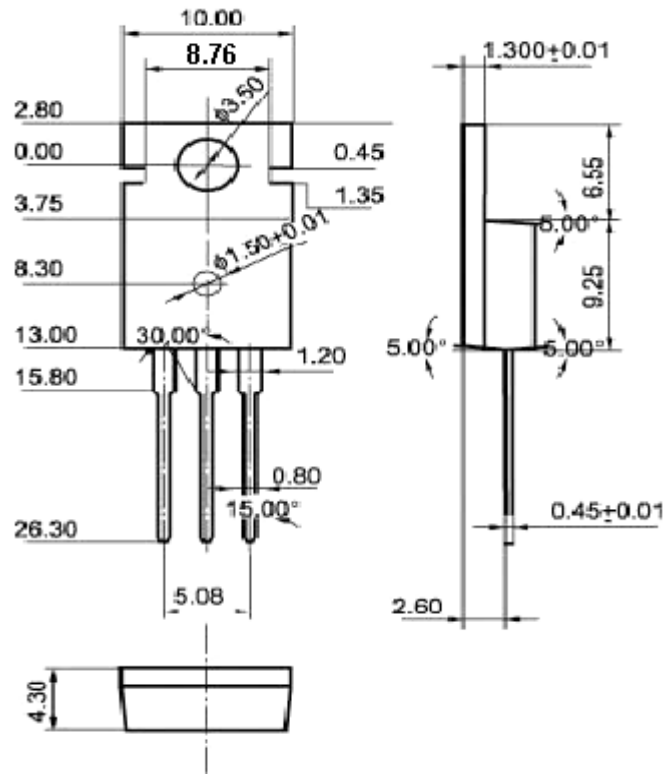


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)