

Silicon PNP Power Transistors

2N6107 2N6109 2N6111

DESCRIPTION

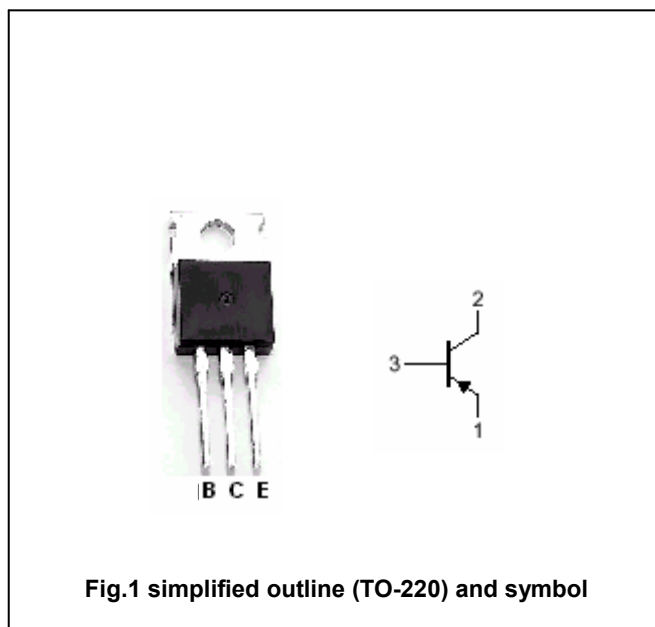
- With TO-220 package
- Complement to NPN type:
2N6288; 2N6290 ;2N6292

APPLICATIONS

- Power amplifier and switching circuits applications

PINNING

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

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6107	Open emitter	-40	V
		2N6109		-60	
		2N6111		-80	
V_{CEO}	Collector-emitter voltage	2N6107	Open base	-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 _{CE(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	V _{CE} =-20V; I _B =0			-1.0	mA
		2N6109	V _{CE} =-40V; I _B =0				
		2N6111	V _{CE} =-60V; I _B =0				
I _{CEX}	Collector cut-off current	2N6107	V _{CE} =-40V; V _{BE} =-1.5V V _{CE} =-30V; V _{BE} =-1.5V, T _C =125°C			-0.1 -2.0	mA
		2N6109	V _{CE} =-60V; V _{BE} =-1.5V V _{CE} =-50V; V _{BE} =-1.5V, T _C =125°C			-0.1 -2.0	
		2N6111	V _{CE} =-80V; V _{BE} =-1.5V V _{CE} =-70V; V _{BE} =-1.5V, T _C =125°C			-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	2N6107	I _C =-2A ; V _{CE} =-4V	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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Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)