

Silicon NPN Power Transistors

2N5427 2N5429

DESCRIPTION

- With TO-66 package
- Excellent safe operating area
- Low collector saturation voltage

APPLICATIONS

- For switching and wide-band amplifier applications.

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

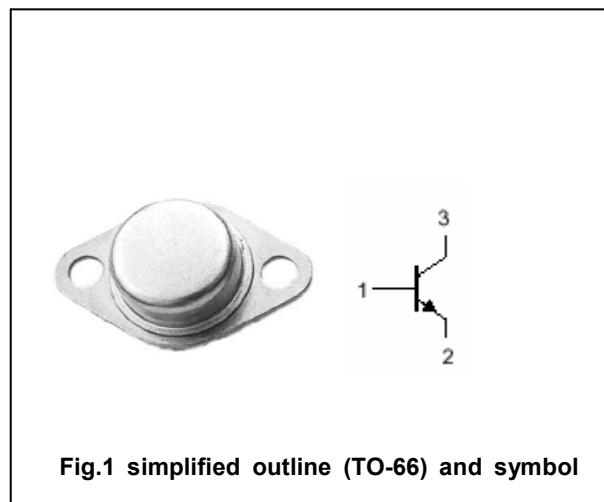


Fig.1 simplified outline (TO-66) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N5427	Open emitter	80	V
		2N5429		100	
V_{CEO}	Collector-emitter voltage	2N5427	Open base	80	V
		2N5429		100	
V_{EBO}	Emitter-base voltage		Open collector	6	V
I_C	Collector current			7	A
I_B	Base current			1	A
P_D	Total power dissipation		$T_C = 25\square$	40	W
T_j	Junction temperature			200	$\square$
T_{stg}	Storage temperature			-65~200	$\square$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	4.37	$\square/W$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	2N5427	I _C =50mA ; I _B =0	80			V
		2N5429		100			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =2A ; I _B =0.2A			0.7	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =7A ; I _B =0.7A			1.2	V
V _{BE sat-1}	Base-emitter saturation voltage		I _C =2A ; I _B =0.2A			1.2	V
V _{BE sat-2}	Base-emitter saturation voltage		I _C =7A ; I _B =0.7A			2.0	V
I _{CBO}	Collector cut-off current		V _{CB} =Rated V _{CBO} ; I _E =0			0.1	mA
I _{CEX}	Collector cut-off current	2N5427	V _{CE} = 75V ; V _{BE(off)} =-1.5V T _C =150°C			0.1 1.0	mA
		2N5429	V _{CE} = 90V ; V _{BE(off)} =-1.5V T _C =150°C			0.1 1.0	
I _{EBO}	Emitter cut-off current		V _{EB} =6V ; I _C =0			0.1	mA
h _{FE-1}	DC current gain		I _C =0.5A ; V _{CE} =2V	30			
h _{FE-2}	DC current gain		I _C =2A ; V _{CE} =2V	30		120	
h _{FE-3}	DC current gain		I _C =5A ; V _{CE} =2V	20			
f _T	Transition frequency		I _C =0.5A ; V _{CE} =10V ; f=10MHz	20			MHz

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PACKAGE OUTLINE

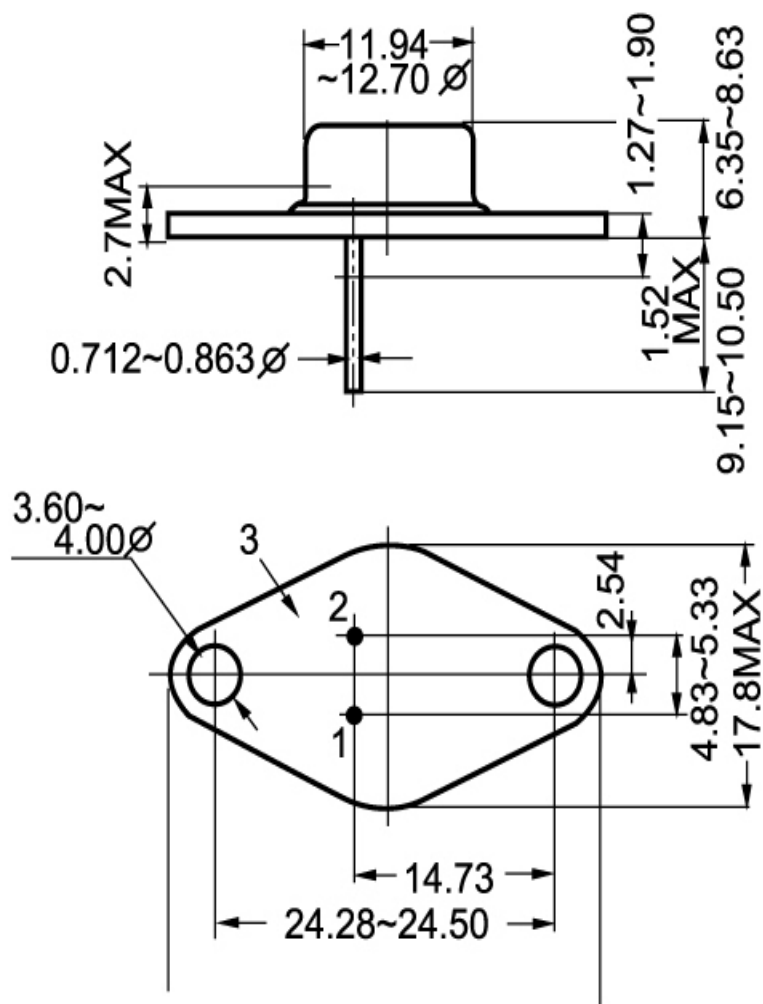


Fig.2 outline dimensions