

Silicon NPN Power Transistors 2N5614 2N5616 2N5618 2N5620

DESCRIPTION

- With TO-3 package
- Excellent safe operating area
- Low collector saturation voltage

APPLICATIONS

- For general-purpose amplifier ;
and switching applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

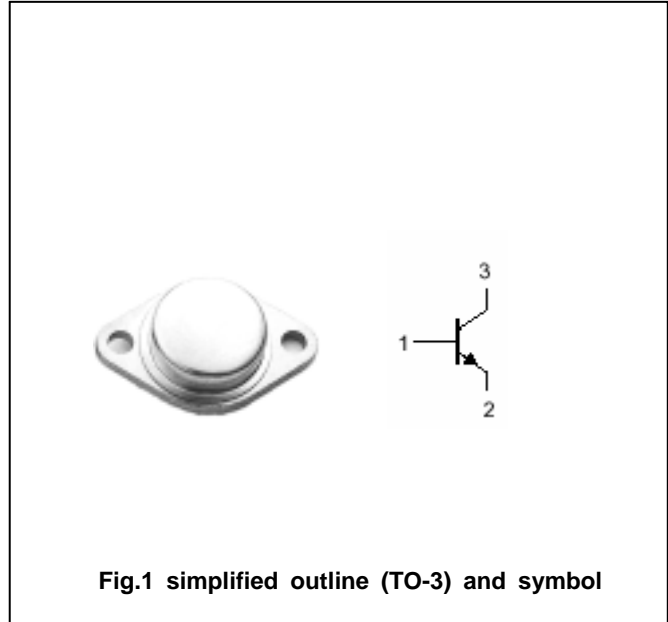


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a =$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N5614	80	V
		2N5616/5618	100	
		2N5620	120	
V_{CEO}	Collector-emitter voltage	2N5614	60	V
		2N5616/5618	80	
		2N5620	100	
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		5	A
P_D	Total power dissipation	$T_C=25$	50	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.5	/W

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CHARACTERISTICST_j=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	2N5614	I _C =50mA ; I _B =0	60			V
		2N5616/5618		80			
		2N5620		100			
V _{CEsat}	Collector-emitter saturation voltage		I _C =1A; I _B =0.1A			0.5	V
V _{BE}	Base-emitter on voltage		I _C =2.5A ; V _{CE} =5V			1.5	V
I _{CBO}	Collector cut-off current		V _{CB} =Rated V _{CBO} ; I _E =0			0.1	mA
I _{CEO}	Collector cut-off current		V _{CE} = Rated V _{CEQ} , I _B =0			1.0	mA
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			0.1	mA
h _{FE}	DC current gain	2N5614/5618	I _C =2.5A ; V _{CE} =5V	70		200	
		2N5616/5620		30		90	
f _T	Transition frequency	2N5614/5618	I _C =0.5A ; V _{CE} =10V	70			MHz
		2N5616/5620		60			

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PACKAGE OUTLINE

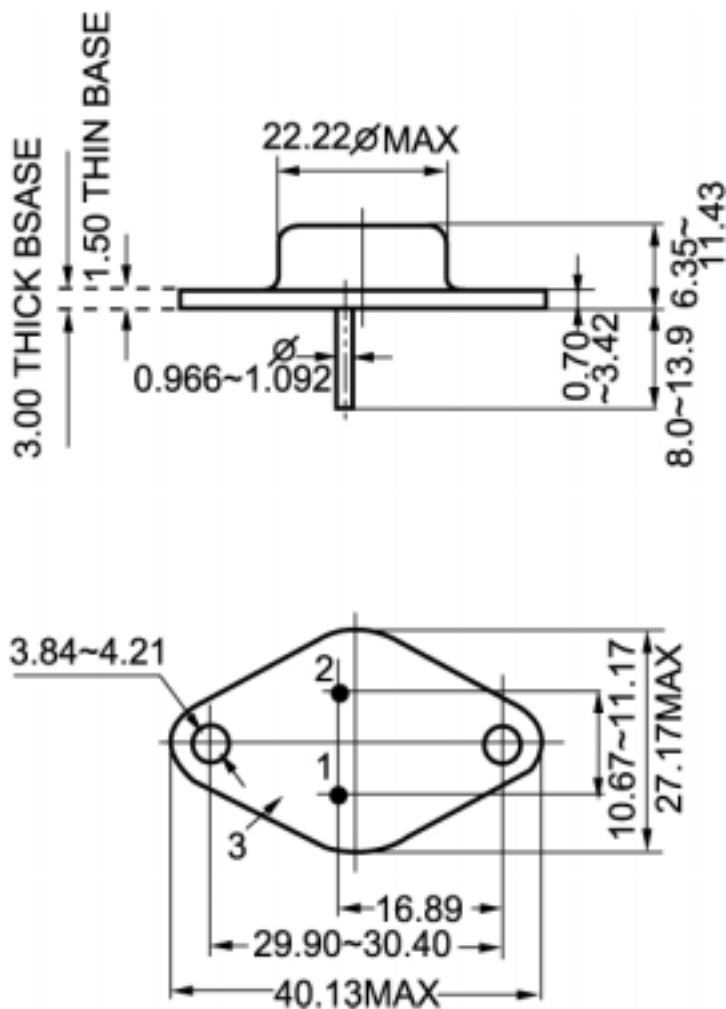


Fig.2 outline dimensions