

Inchange Semiconductor

Product Specification

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

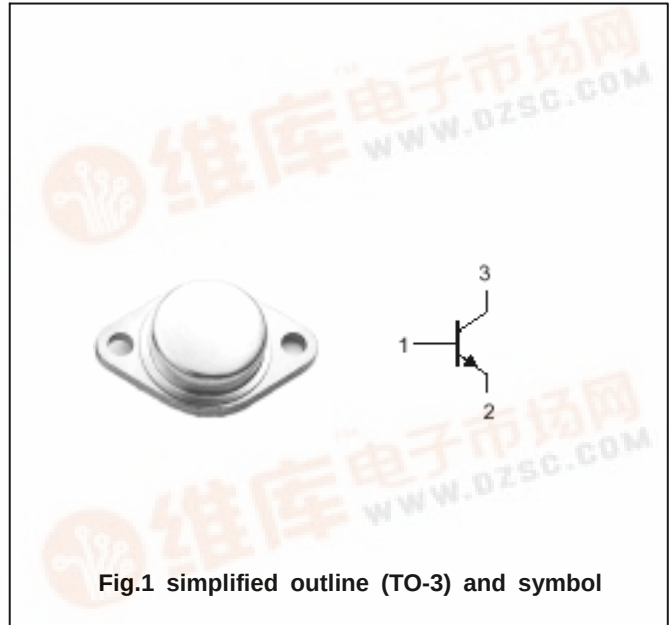


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=°C)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2N5614	Open emitter	80	V
		2N5616/5618		100	
		2N5620		120	
V _{CEO}	Collector-emitter voltage	2N5614	Open base	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°C	50	W
T _j	Junction temperature			150	°C
T _{stg}	Storage temperature			-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{th j-c}	Thermal resistance junction to case	1.5	°C/W

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(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 _{CEO} , 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

