

Silicon PNP Power Transistors

2N5741 2N5742

DESCRIPTION

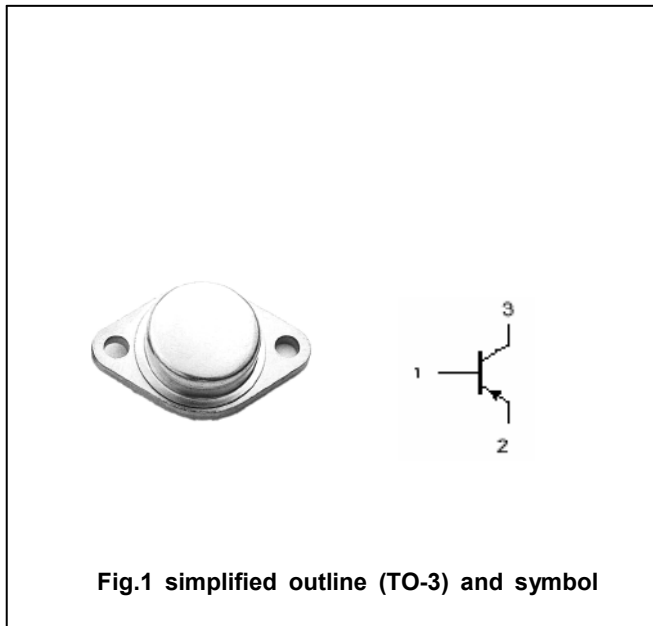
- With TO-3 package
- Low collector saturation voltage
- Fast switching speed

APPLICATIONS

- For general-purpose switching and power amplifier applications.

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2N5741	-60	V
		2N5742	-100	
V _{CEO}	Collector-emitter voltage	2N5741	-60	V
		2N5742	-100	
V _{EBO}	Emitter-base voltage	Open collector	-5	V
I _C	Collector current		-20	A
P _C	Collector power dissipation	T _C =100□	65	W
T _j	Junction temperature		150	□
T _{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{th j-c}	Thermal resistance junction to case	0.875	□/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	2N5741	-60			V
		2N5742	-100			
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =-10A; I _B =-1A			-1.0	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =-20A; I _B =-4A			-3.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-10A; I _B =-1A			-1.8	V
V _{BE}	Base-emitter on voltage	I _C =-10A; V _{CE} =-5V			-1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =Rated V _{CBO} ; I _E =0			-0.1	mA
I _{CEX}	Collector cut-off current	V _{CE} = Rated V _{CEO} ; V _{BE(off)} =1.5V T _C =150 °C			-0.5 -5.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-1.0	mA
h _{FE-1}	DC current gain	I _C =-10A; V _{CE} =-5V	20		80	
h _{FE-2}	DC current gain	I _C =-20A; V _{CE} =-5V	10			
f _T	Transition frequency	I _C =-1A; V _{CE} =-10V	10			MHz

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PACKAGE OUTLINE

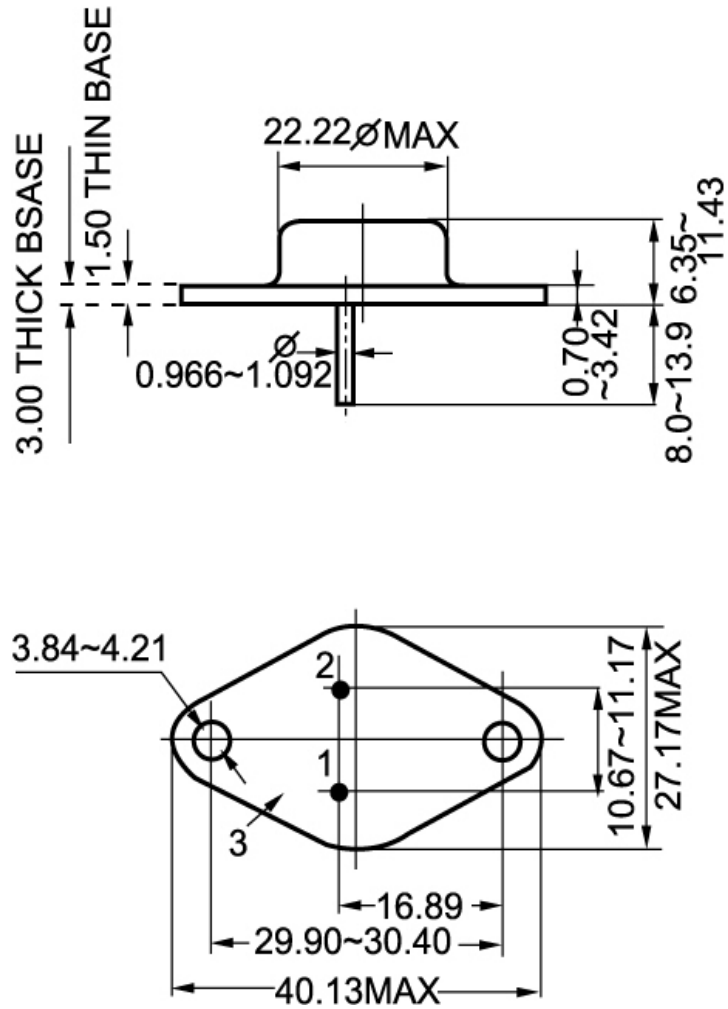


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.1\text{mm}$)