

Silicon PNP Power Transistors

2N5741 2N5742

DESCRIPTION

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

APPLICATIONS

- For general-purpose switching and power amplifier applications.

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

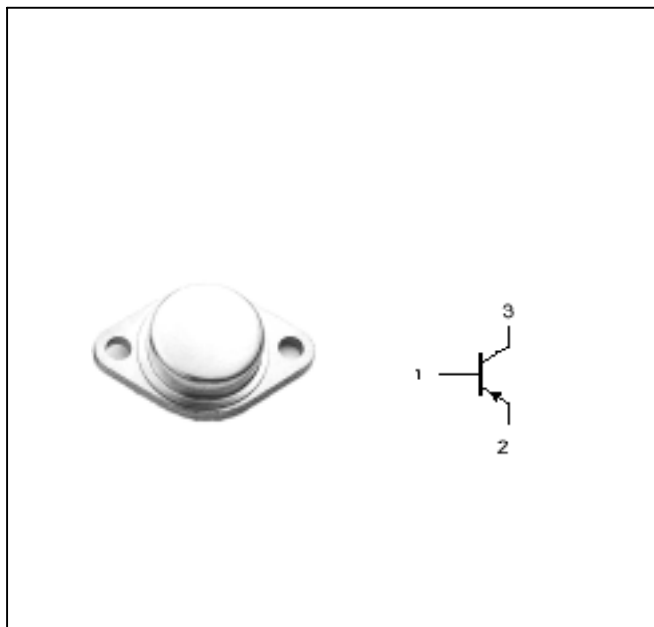


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CB0}	Collector-base voltage	2N5741	60	V
		2N5742		
V _{CEO}	Collector-emitter voltage	2N5741	60	V
		2N5742		
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 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CEO}	Collector-emitter sustaining voltage	2N5741	I _C =0.2A ; I _B =0	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 _{CB0} ; 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			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

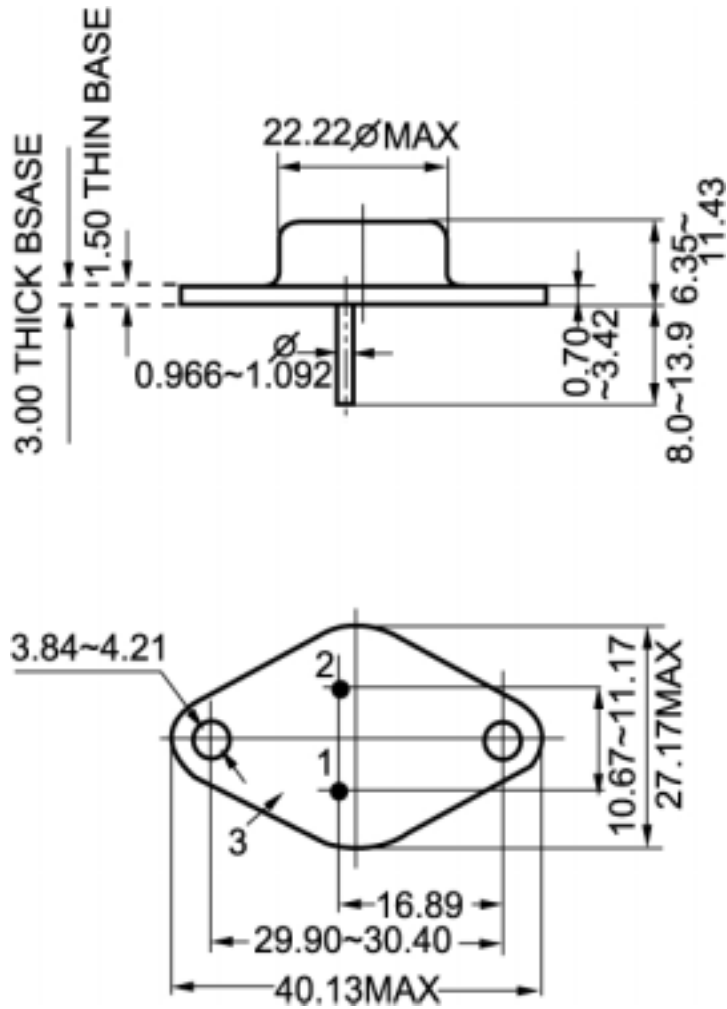


Fig.2 outline dimensions (unindicated tolerance: ± 0.1 mm)