

Silicon NPN Power Transistors

2N3716

DESCRIPTION

·With TO-3 package

APPLICATIONS

·They are intended for use in power linear and switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

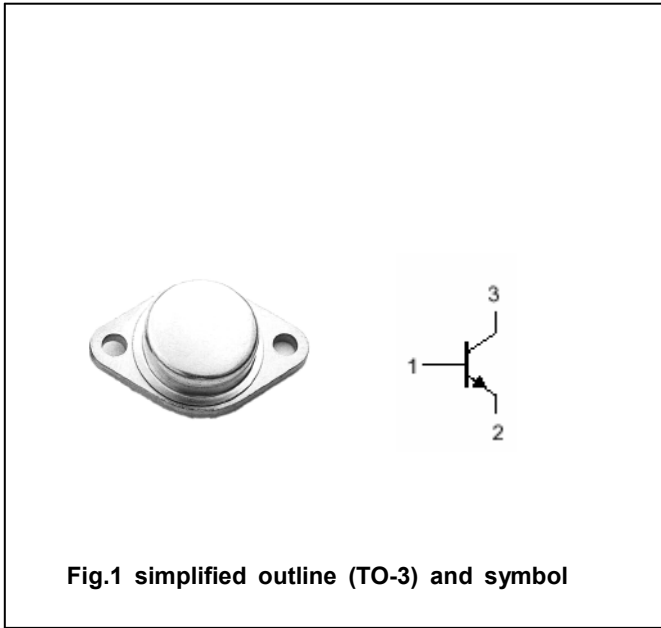


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	100	V
V _{CEO}	Collector-emitter voltage	Open base	80	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		10	A
I _B	Base current		4	A
P _D	Total Power Dissipation	T _C =25°C	150	W
T _j	Junction temperature		200	°C
T _{stg}	Storage temperature		-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{(th) jc}	Thermal resistance junction to case	1.17	°C/W

Silicon NPN Power Transistors

2N3716

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =0.2A ; I _B =0	80			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =5A ; I _B =0.5A			0.8	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =5A ; I _B =0.5A			1.5	V
V _{BE(on)}	Base-emitter on voltage	I _C =3A ; V _{CE} =2V			1.5	V
I _{CEX}	Collector cut-off current	V _{CE} =100V; V _{BE(off)} =1.5V T _C =150°C			1.0 10.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			5.0	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =2V	50		150	
h _{FE-2}	DC current gain	I _C =3A ; V _{CE} =2V	30			
h _{FE-3}	DC current gain	I _C =10A ; V _{CE} =4V	5			
f _T	Transition frequency	I _C =0.5A; V _{CE} =10V	4			MHz

Silicon NPN Power Transistors

2N3716

PACKAGE OUTLINE

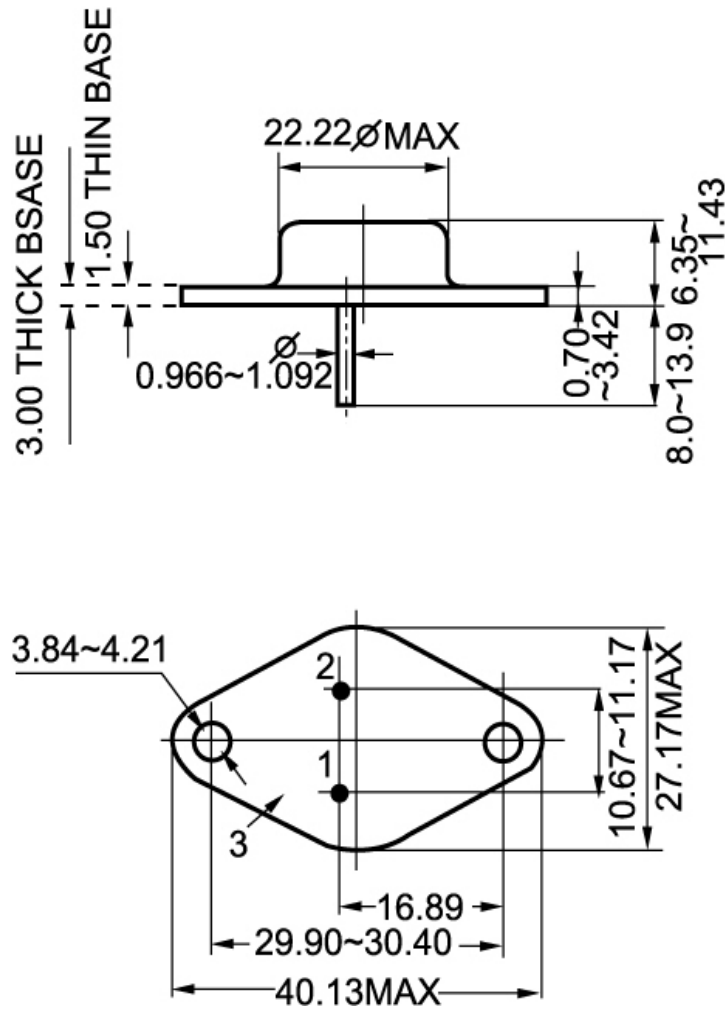


Fig.2 outline dimensions (unindicated tolerance:±0.10mm)