Silicon PNP Power Transistors 2N4901 2N4902 2N4903

DESCRIPTION

·With TO-3 package
·Complement to type 2N5067/5068/5069
·Low collector saturation voltage

APPLICATIONS

·For general–purpose switching
and power amplifier applications.

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

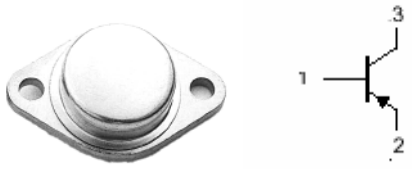

Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS(Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N4901	Open emitter	-40	V
		2N4902		-60	
		2N4903		-80	
V_{CEO}	Collector-emitter voltage	2N4901	Open base	-40	V
		2N4902		-60	
		2N4903		-80	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current			-5	A
I_{CM}	Collector current-peak			-10	A
I_B	Base current			-1	A
P_D	Total power dissipation		T_C=25□	87.5	W
T_j	Junction temperature			200	□
T_{stg}	Storage temperature			-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{(th)\,jc}$	Thermal resistance junction to case	2.0	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	2N4901	I_C=-0.2A ;I_B=0	-40			V
		2N4902		-60			
		2N4903		-80			
$V_{CE(sat)-1}$	Collector-emitter saturation voltage		I_C=-1A; I_B=-0.1A			-0.4	V
$V_{CE(sat)-2}$	Collector-emitter saturation voltage		I_C=-5A ;I_B=-1A			-1.5	V
$V_{BE(on)}$	Base-emitter on voltage		I_C=-1A ; V_{CE}=-2V			-1.2	V
I_{CEO}	Collector cut-off current		V_{CE}=Rated V_{CEO}; I_B=0			-1.0	mA
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□			-1.0 -2.0	mA
I_{EBO}	Emitter cut-off current		V_{EB}=-5V; I_C=0			-1.0	mA
h_{FE-1}	DC current gain		I_C=-1A ; V_{CE}=-2V	20		80	
h_{FE-2}	DC current gain		I_C=-5A ; V_{CE}=-2V	7			
f_T	Transition frequency		I_C=-1A ; V_{CE}=-10V	4			MHz

PACKAGE OUTLINE

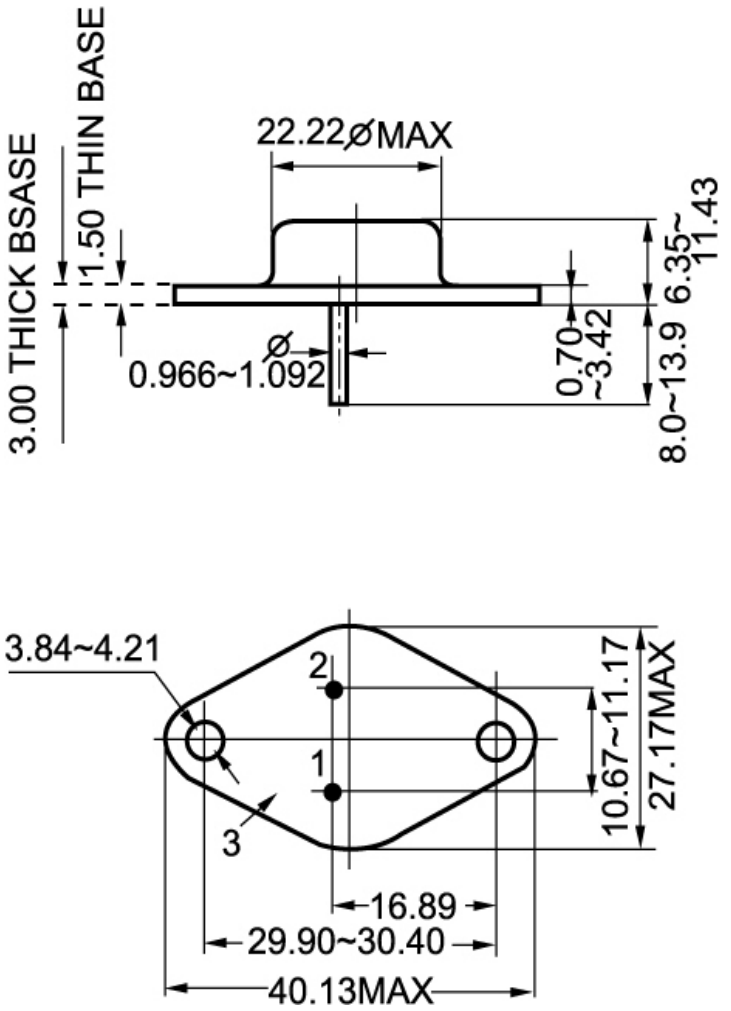

Fig.2 outline dimensions (unindicated tolerance:±0.1mm)