Silicon PNP Power Transistors 2N6029 2N6030

DESCRIPTION

·With TO-3 package
·Complement to type 2N5629 2N5630
·High power dissipations

APPLICATIONS

·For high voltage and high 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_{CBO}	Collector-base voltage	2N6029	Open emitter	-100	V
		2N6030		-120	
V_{CEO}	Collector-emitter voltage	2N6029	Open base	-100	V
		2N6030		-120	
V_{EBO}	Emitter-base voltage		Open collector	-7	V
I_C	Collector current			-16	A
I_{CM}	Collector current-peak			-20	A
I_B	Base current			-5.0	A
P_D	Total Power Dissipation		T_C=25□	200	W
T_j	Junction temperature			200	□
T_{stg}	Storage temperature			-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance junction to case	0.875	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	2N6029	I_C=-0.2A ;I_B=0	-100			V
		2N6030		-120			
$V_{CEsat-1}$	Collector-emitter saturation voltage		I_C=-10A; I_B=-1A			-1.0	V
$V_{CEsat-2}$	Collector-emitter saturation voltage		I_C=-16A ;I_B=-4A			-2.0	V
V_{BEsat}	Base-emitter saturation voltage		I_C=-10A; I_B=-1A			-1.8	V
V_{BE}	Base-emitter on voltage		I_C=-8A ; V_{CE}=-2V			-1.5	V
I_{CBO}	Collector cut-off current		V_{CB}=ratedV_{CBO}; I_E=0			-1.0	mA
I_{CEO}	Collector cut-off current	2N6029	V_{CE}=-50V; I_B=0			-1.0	mA
		2N6030	V_{CE}=-60V; I_B=0				
I_{CEV}	Collector cut-off current ($V_{BE(off)}$=1.5V)		V_{CE}=ratedV_{CB}			-1.0	mA
			V_{CE}=ratedV_{CB}; T_C=150□			-5.0	
I_{EBO}	Emitter cut-off current		V_{EB}=-7V; I_C=0			-1.0	mA
h_{FE-1}	DC current gain	2N6029	I_C=-8A ; V_{CE}=-2V	25		100	
		2N6030		20		80	
h_{FE-2}	DC current gain		I_C=-16A ; V_{CE}=-2V	4			
C_{OB}	Output capacitance		I_E=0 ; V_{CB}=-10V ;f=0.1MHz			1000	pF
f_T	Transition frequency		I_C=-1A ; V_{CE}=-20V;f=0.5MHz	1.0			MHz

PACKAGE OUTLINE

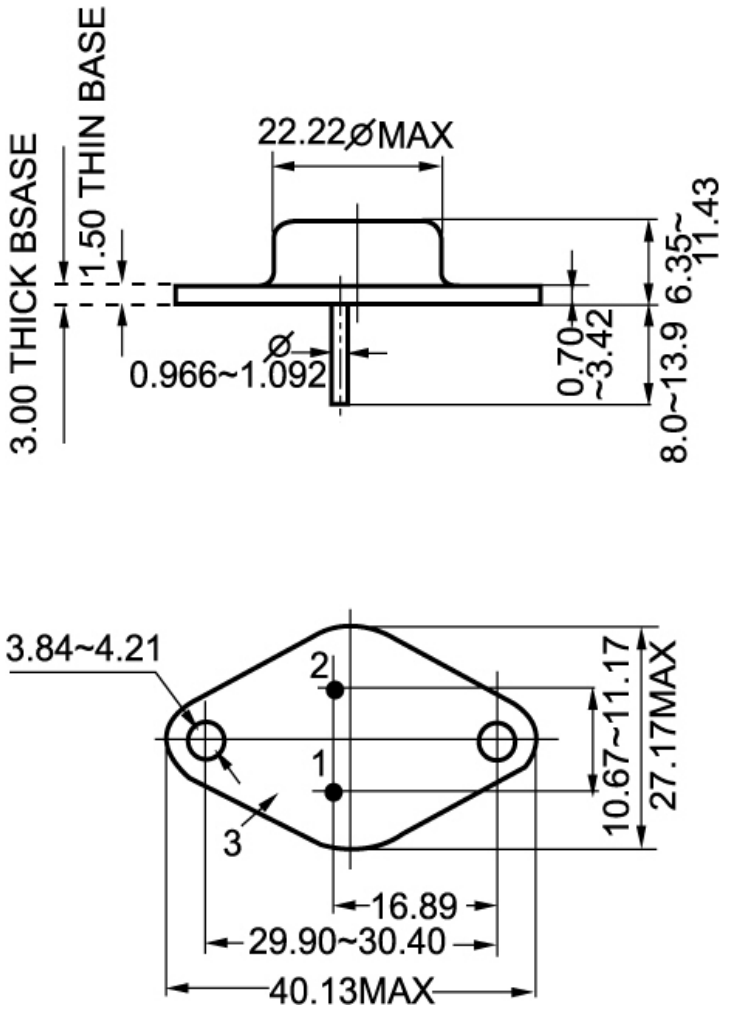

Fig.2 outline dimensions (unindicated tolerance:±0.10mm)