Silicon NPN Power Transistors 2N6513

DESCRIPTION

·With TO-3 package
·High breakdown voltage
·Low collector saturation voltage

APPLICATIONS

·For use in switching power supply applications and other inductive switching circuits

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	Open emitter	400	V
V_{CEO}	Collector-emitter voltage	Open base	350	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		7	A
I_{CM}	Collector current-peak		14	A
P_D	Total power dissipation	T_C=25□	120	W
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance junction to case	1.25	□/W

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CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=0.1A ;I_B=0	350			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	I_C=3A; I_B=0.4A			1.0	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=5A; I_B=1A			1.0	V
V_{BEsat}	Base-emitter saturation voltage	I_C=5A; I_B=1A			1.5	V
I_{CES}	Collector cut-off current	V_{CE}=400V; $V_{BE(off)}$=-1.5V T_C=100□			0.1 1.5	mA
I_{EBO}	Emitter cut-off current	V_{EB}=7V; I_C=0			0.1	mA
h_{FE}	DC current gain	I_C=4A ; V_{CE}=3V	10		50	
f_T	Transition frequency	I_C=0.5A ; V_{CE}=10V		3		MHz

PACKAGE OUTLINE

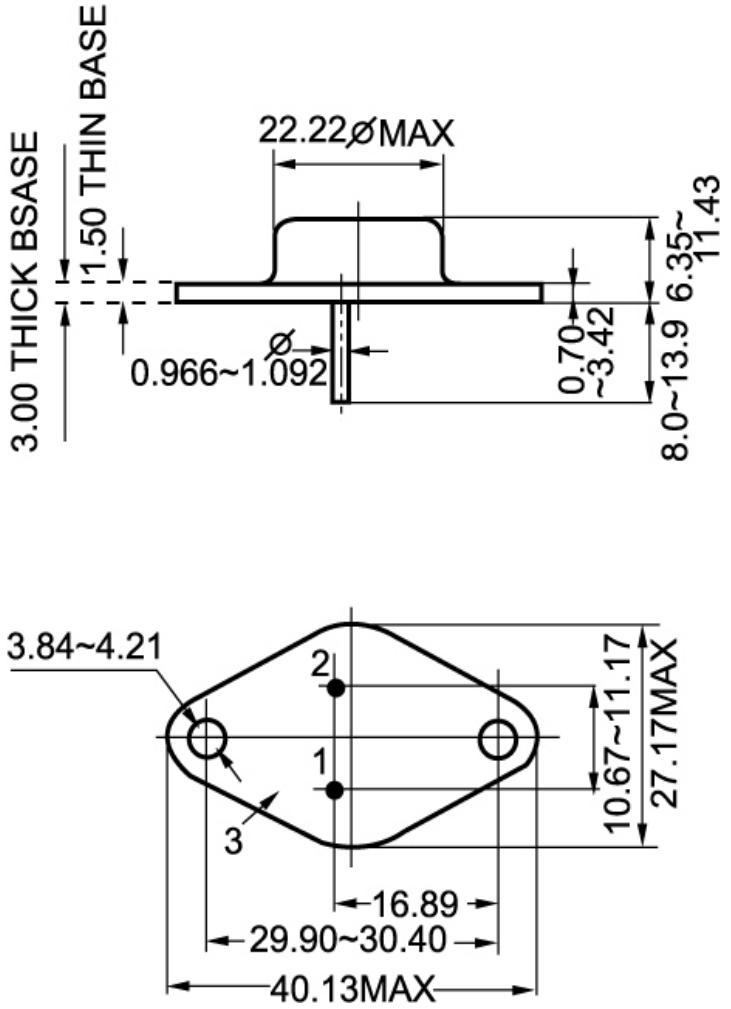

Fig.2 outline dimensions (unindicated tolerance:±0.1mm)