Silicon NPN Power Transistors 2N5973

DESCRIPTION

- With TO-3 package
- Low collector-emitter saturation voltage

APPLICATIONS

- Designed for general-purpose power amplifier and switching 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	Open emitter	120	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		15	A
I_{CM}	Collector current-peak		30	A
I_B	Base current		5	A
P_D	Total Power Dissipation	T_C=25℃	150	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	1.1	℃/W

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustioning voltage	I_C=0.1A ;I_B=0	100			V
$V_{CEsat-1}$	Collector-emitter saturation voltge	I_C=7A ;I_B=0.7A			1.0	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=15A; I_B=3.75A			4.0	V
V_{BEsat}	Base-emitter saturation voltage	I_C=15A; I_B=3.75A			2.5	V
I_{CEO}	Collector cut-off current	V_{CE}=30V; I_B=0			1.0	mA
I_{CEV}	Collector cut-off current	V_{CE}=120V; $V_{BE(off)}$=1.5V T_C=150℃			0.5 5.0	mA
I_{CBO}	Emitter cut-off current	V_{CB}=120V; I_E=0			0.5	mA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			1.0	mA
h_{FE-1}	DC current gain	I_C=5A ; V_{CE}=1.5V	25		75	
h_{FE-2}	DC current gain	I_C=15A ; V_{CE}=4V	4			
f_T	Transition frequency	I_C=1A;V_{CE}=10V	4			MHz

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PACKAGE OUTLINE

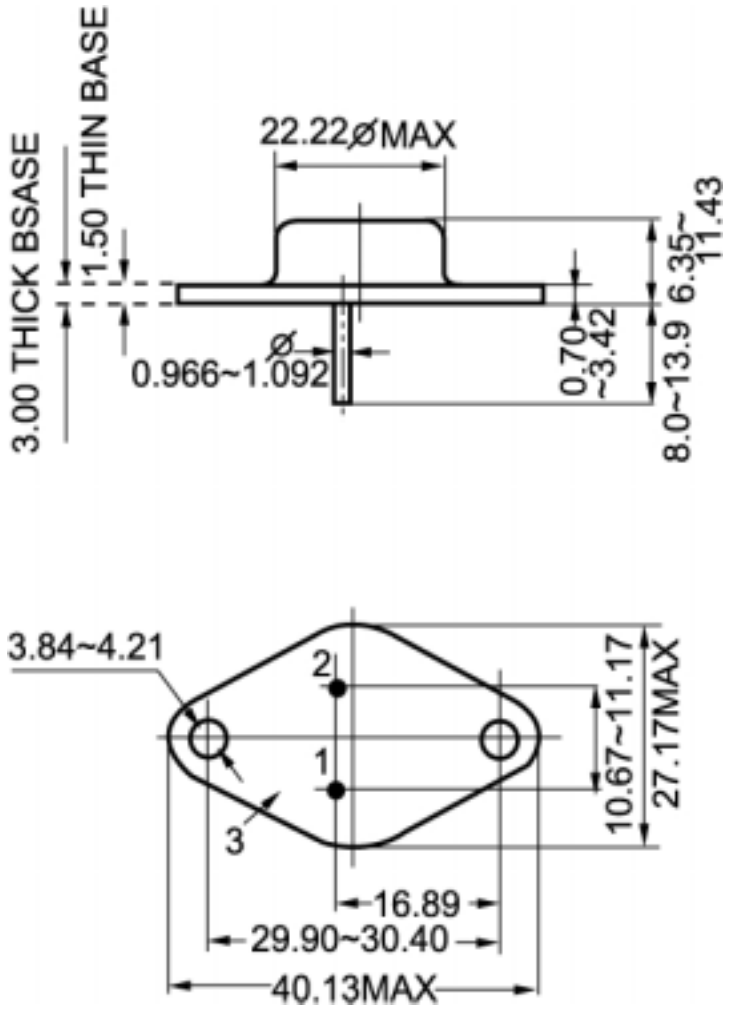

Fig.2 outline dimensions (unindicated tolerance:±0.10mm)