Silicon NPN Power Transistors 2N3446

DESCRIPTION

- With TO-3 package
- Excellent safe operating area

APPLICATIONS

- Designed for medium-switching and 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	Open emitter	100	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		7.5	A
P_C	Collector power dissipation	T_C=25℃	115	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	1.17	℃/W

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=30mA ;I_B=0	100			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	I_C=3A; I_B=0.3A			1.2	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	I_C=7A;I_B=1.5A			3.0	V
V_{BE}	Base-emitter on voltage	I_C=3A ; V_{CE}=5V			1.5	V
I_{CEO}	Collector cut-off current	V_{CE}=100V; I_B=0			0.7	mA
I_{CBO}	Collector cut-off current	V_{CB}=100V; I_E=0			0.1	mA
I_{EBO}	Emitter cut-off current	V_{EB}=7V; I_C=0			0.1	mA
h_{FE-1}	DC current gain	I_C=3A ; V_{CE}=5V	20		60	
h_{FE-2}	DC current gain	I_C=7A ; V_{CE}=5V	4			

PACKAGE OUTLINE

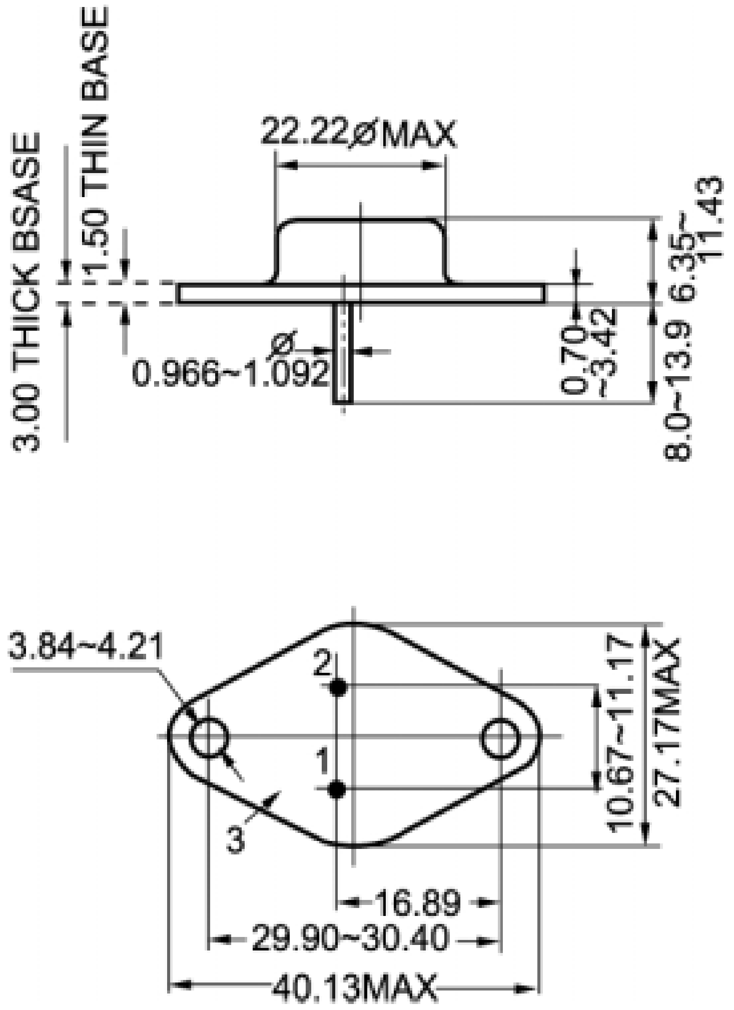

Fig.2 outline dimensions (unindicated tolerance:±0.1mm)