Silicon NPN Power Transistors 2N5157

DESCRIPTION

- With TO-3 package
- High breakdown voltage

APPLICATIONS

- Switching regulator
- Inverters
- Solenoid and relay drivers
- Motor controls

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

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

MAXIMUN RATINGS(Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	700	V
V_{CEO}	Collector-emitter voltage	Open base	500	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		3.5	A
P_T	Total power dissipation	T_c=25℃	100	W
T_j	Junction temperature		165	℃
T_{stg}	Storage temperature		-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance from junction to case	1.0	℃/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	500			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=3A; I_B=0.5A			1.2	V
V_{BEsat}	Base-emitter saturation voltage	I_C=3A; I_B=0.5A			1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=700V; I_E=0 T_C=125℃			0.2 2.0	mA
I_{CEO}	Collector cut-off current	V_{CE}=500V; I_B=0			5.0	mA
I_{EBO}	Emitter cut-off current	V_{EB}=7V; I_C=0			1.0	mA
h_{FE}	DC current gain	I_C=1A ; V_{CE}=5V	30		90	
f_T	Transition frequency	I_C=1A ; V_{CE}=10V;f=5.0MHz		2.8		MHz

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PACKAGE OUTLINE

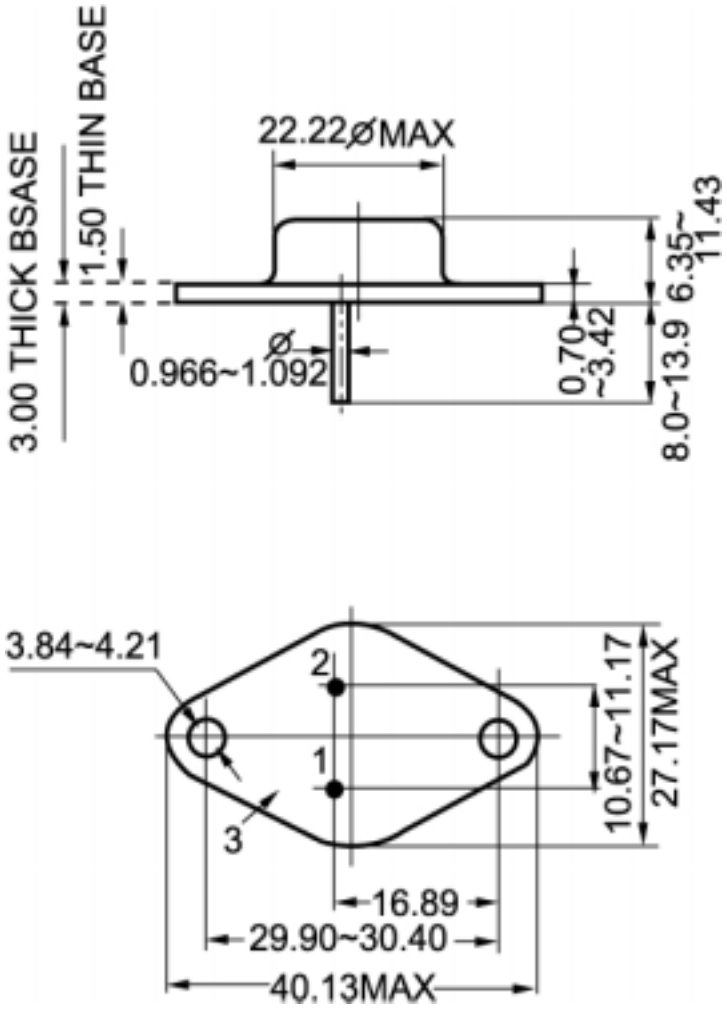

Fig.2 Outline dimensions