Silicon NPN Power Transistors 2N5241

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

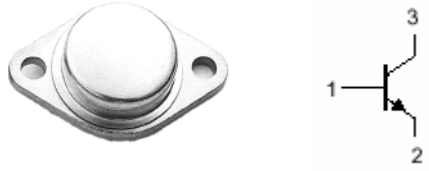

Fig.1 simplified outline (TO-3) and symbol

MAXIMUN RATINGS(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	400	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		5	A
P_T	Total power dissipation	T_c=25□	125	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	1.46	□/W

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	400			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=2A; I_B=0.4A			2.0	V
V_{BEsat}	Base-emitter saturation voltage	I_C=2A; I_B=0.4A			2.0	V
I_{CBO}	Collector cut-off current	V_{CB}=400V; I_E=0 T_C=125□			0.2 2.0	mA
I_{CEO}	Collector cut-off current	V_{CE}=400V; I_B=0			5.0	mA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			1.0	mA
h_{FE}	DC current gain	I_C=2.5A ; V_{CE}=5V	15		35	

PACKAGE OUTLINE

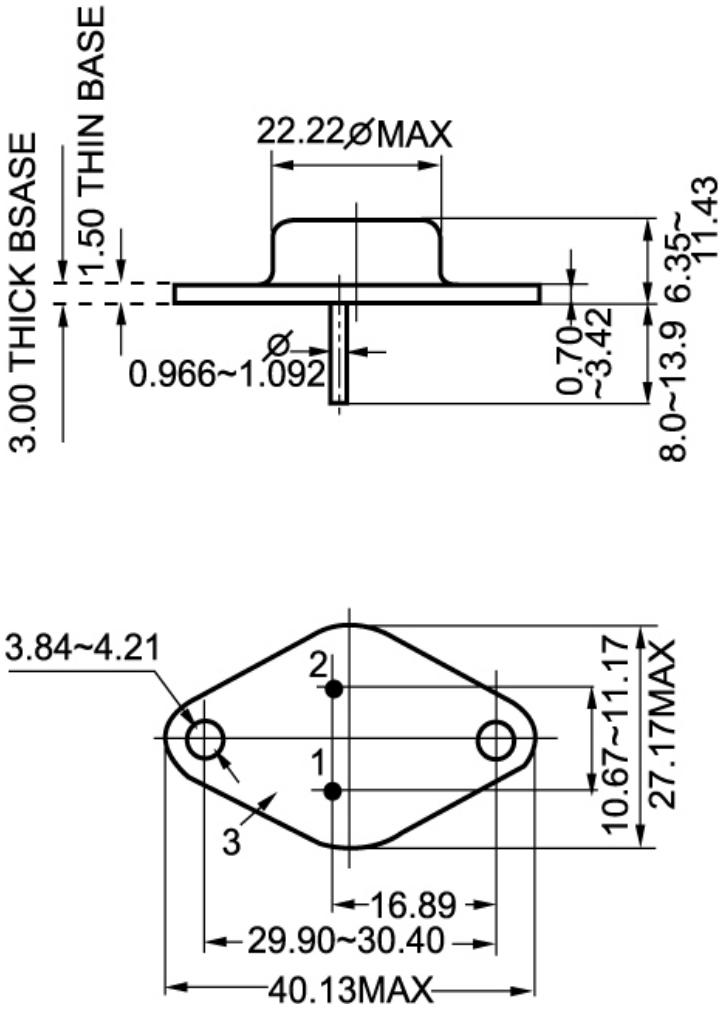

Fig.2 Outline dimensions