

Silicon NPN Power Transistors

2N6371

DESCRIPTION

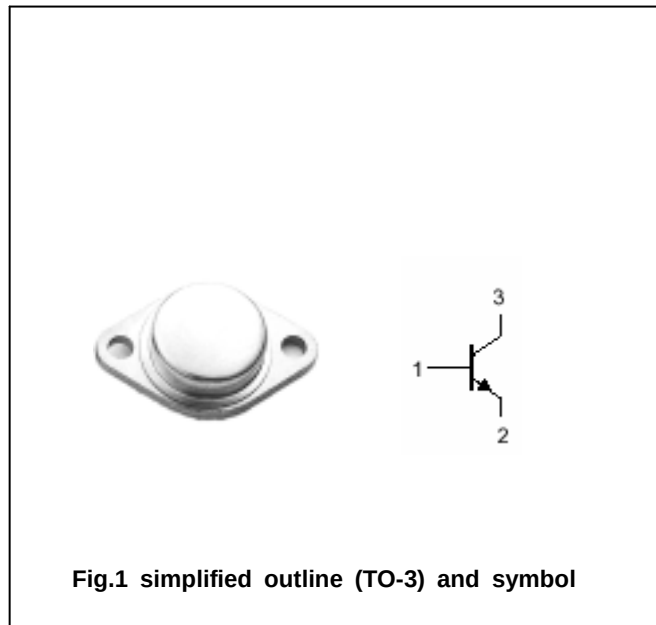
- With TO-3 package
- Low collector saturation voltage
- High dissipation capability
- Excellent safe operating area

APPLICATIONS

- Series and shunt regulators
- High-fidelity amplifiers
- Power-switching circuits

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings($T_a = ^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	50	V
V_{CEO}	Collector-emitter voltage	Open base	40	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		15	A
I_B	Base current		7	A
P_D	Total Power Dissipation	$T_C = 25^\circ\text{C}$	117	W
T_j	Junction temperature		200	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.5	$^\circ\text{C/W}$

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CHARACTERISTICS

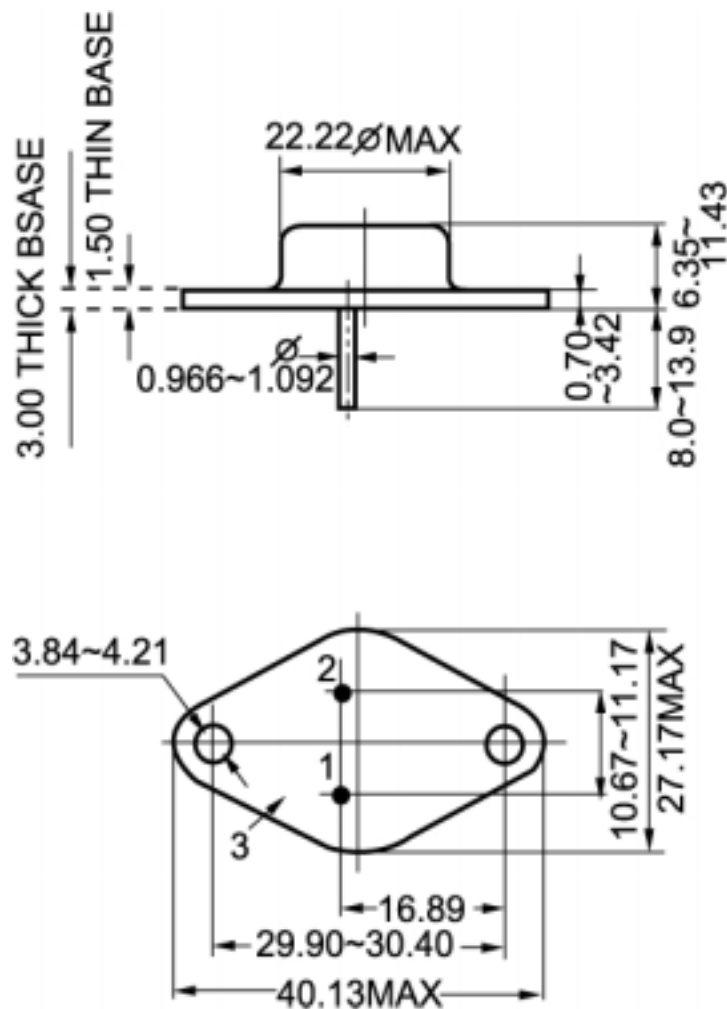
T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =0.2A ; I _B =0	40			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =8A ; I _B =0.8A			1.5	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =16A; I _B =4A			4.0	V
V _{BE}	Base-emitter on voltage	I _C =16A ; V _{CE} =4V			4.0	V
I _{CEO}	Collector cut-off current	V _{CE} =25V; I _B =0			1.5	mA
I _{CEx}	Collector cut-off current	V _{CE} =45V; V _{BE(off)} =1.5V V _{CE} =40V; V _{BE(off)} =1.5V; T _C =150°C			2.0 10.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			10	mA
h _{FE-1}	DC current gain	I _C =8A ; V _{CE} =4V	15		60	
h _{FE-2}	DC current gain	I _C =16A ; V _{CE} =4V	4			
f _T	Transition frequency	I _C =1A ; V _{CE} =4V		0.8		MHz

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PACKAGE OUTLINE

Fig.2 outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)