

Silicon NPN Power Transistors

2N5671 2N5672

DESCRIPTION

- With TO-3 package
- High current ,high speed

APPLICATIONS

- Intended for high current and fast switching industrial applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N5671	Open emitter	120	V
		2N5672		150	
V_{CEO}	Collector-emitter voltage	2N5671	Open base	90	V
		2N5672		120	
V_{EBO}	Emitter-base voltage		Open collector	7	V
I_C	Collector current			30	A
I_B	Base current			10	A
P_D	Total Power Dissipation		$T_C = 25 \square$	140	W
T_j	Junction temperature			200	$\square$
T_{stg}	Storage temperature			-65~200	$\square$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.25	$\square/W$

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CHARACTERISTICS

T_j=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	2N5671	I _C =0.2A ; I _B =0	90			V
		2N5672		120			
V _{CEsat}	Collector-emitter saturation voltage		I _C =15A; I _B =1.2A			0.75	V
V _{BEsat}	Base-emitter saturation voltage		I _C =15A ; I _B =1.2A			1.5	V
V _{BE}	Base-emitter on voltage		I _C =15A ; V _{CE} =5V			1.6	V
I _{CEO}	Collector cut-off current		V _{CE} =80V; I _B =0			10	mA
I _{CEV}	Collector cut-off current	2N5671	V _{CE} =110V; V _{BE(off)} =1.5V			12	mA
		2N5672	V _{CE} =135V; V _{BE(off)} =1.5V			10	
		2N5671	V _{CE} =100V; V _{BE(off)} =1.5V; T _C =150℃			15	
		2N5672				10	
I _{EBO}	Emitter cut-off current		V _{EB} =7V; I _C =0			10	mA
h _{FE-1}	DC current gain		I _C =15A ; V _{CE} =2V	20		100	
h _{FE-2}	DC current gain		I _C =20A ; V _{CE} =5V	20			
f _T	Transistion frequency		I _C =2A ; V _{CE} =10V; f=1MHz	40			MHz

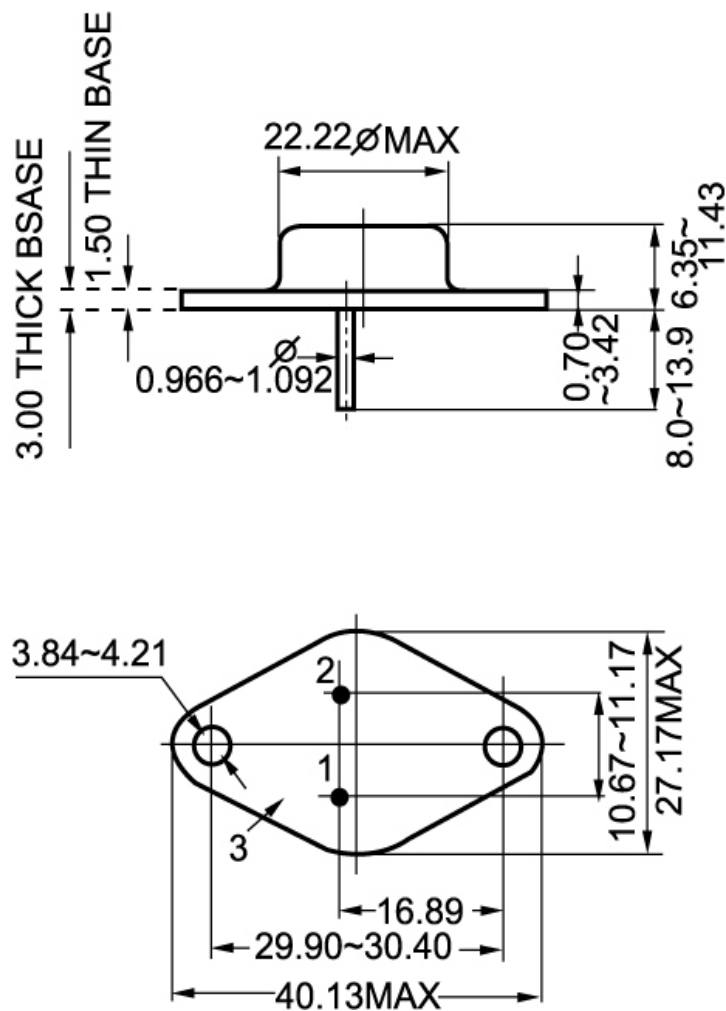
Switching times

t _{on}	Turn-on time	I _C =15A ; I _{B1} =- I _{B2} =1.2A V _{CC} =30V; t _p =0.1ms			0.5	μs
t _s	Storage time				1.5	μs
t _f	Fall time				0.5	μs

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PACKAGE OUTLINE

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