

Silicon NPN Power Transistors

2N6751 2N6752

DESCRIPTION

- With TO-3 package
- High breakdown voltage
- Low saturation voltage
- Fast switching speed

APPLICATIONS

- Off-line power supplies
- High-voltage inverters
- Switching regulators

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

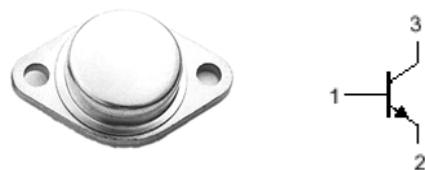


Fig.1 simplified outline (TO-3) and symbol

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6751	Open emitter	800	V
		2N6752		850	
V_{CEO}	Collector-emitter voltage	2N6751	Open base	400	V
		2N6752		450	
V_{EBO}	Emitter-base voltage		Open collector	8	V
I_C	Collector current			10	A
I_B	Base current			5	A
P_D	Total Power Dissipation		$T_C = 25^\circ\text{C}$	150	W
T_j	Junction temperature			-65~175	$^\circ\text{C}$
T_{stg}	Storage temperature			-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.0	$^\circ\text{C/W}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	2N6751	I _C =0.2A ; I _B =0	400			V
		2N6752		450			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =5A; I _B =1A			1.0	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =10A; I _B =3A			3.0	V
V _{BEsat}	Base-emitter saturation voltage		I _C =5A ; I _B =1A			1.3	V
I _{CEV}	Collector cut-off current	2N6751	V _{CE} =800V; V _{BE} =-1.5V T _C =100°C			0.1 1.0	mA
		2N6752	V _{CE} =850V; V _{BE} =-1.5V T _C =100°C			0.1 1.0	
I _{EBO}	Emitter cut-off current		V _{EB} =8V; I _C =0			2.0	mA
h _{FE}	DC current gain		I _C =5A ; V _{CE} =3V	8		40	
C _{OB}	Output capacitance		I _E =0 ; V _{CB} =10V; f=0.1MHz	50		250	pF
f _T	Transition frequency		I _C =0.2A ; V _{CE} =10V	15		60	MHz

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PACKAGE OUTLINE

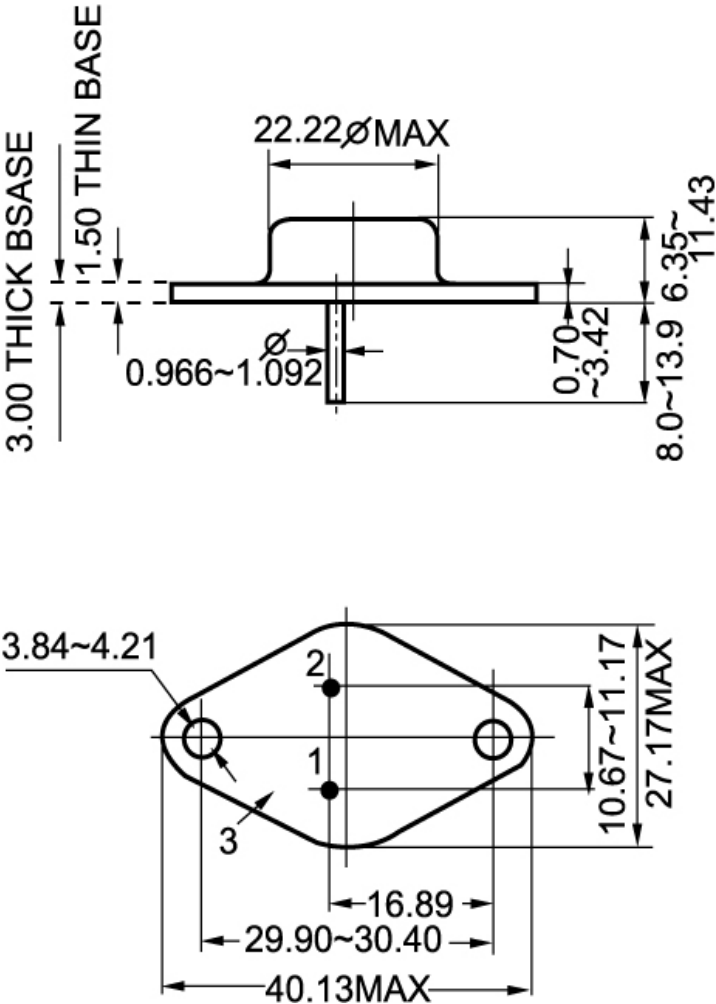


Fig.2 outline dimensions (unindicated tolerance:±0.10mm)