

Silicon NPN Power Transistors

2N6674 2N6675

DESCRIPTION

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

APPLICATIONS

- Switching regulators
- Inverters
- Solenoid and relay drivers
- Deflection circuits

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	2N6674	450	V
		2N6675	650	
V_{CEO}	Collector-emitter voltage	2N6674	300	V
		2N6675	400	
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		15	A
I_B	Base current		5	A
P_T	Total Power Dissipation	$T_a = 25\square$	6	W
		$T_c = 25\square$	175	
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	1.0	$\square/W$

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CHARACTERISTICS

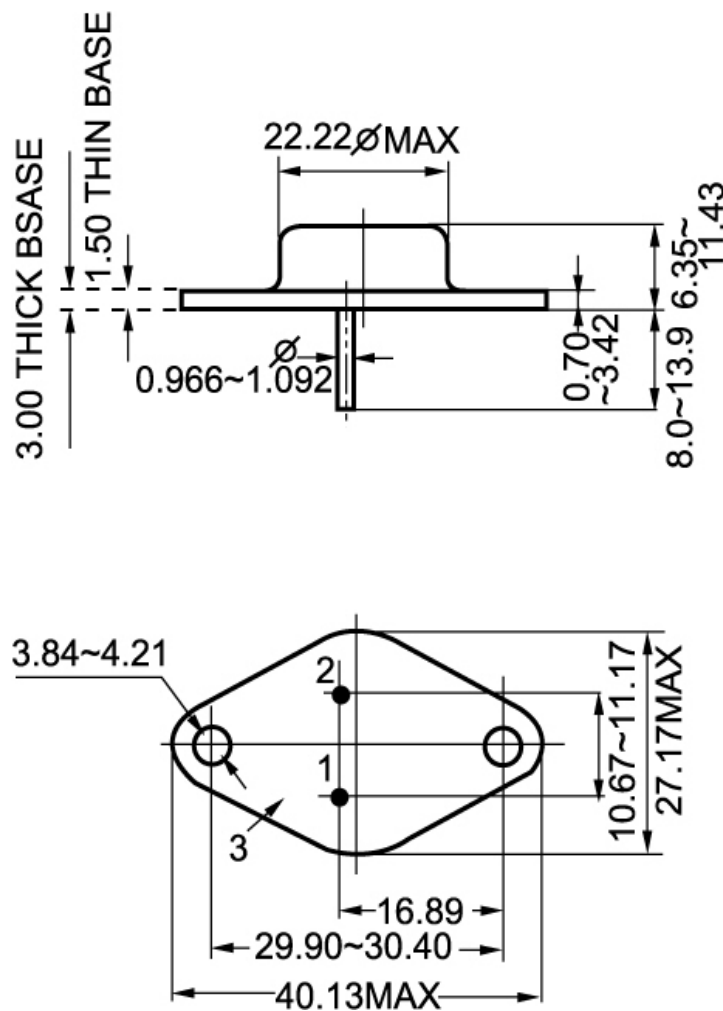
Tj=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	2N6674	$I_C=0.2A ; I_B=0$	300			V
		2N6675		400			
$V_{CEsat-1}$	Collector-emitter saturation voltage		$I_C=10A ; I_B=2A$			1.0	V
$V_{CEsat-2}$	Collector-emitter saturation voltage		$I_C=15A ; I_B=5A$			5.0	V
V_{BEsat}	Base-emitter saturation voltage		$I_C=10A ; I_B=2A$			1.5	V
I_{CBO}	Collector cut-off current	2N6674	$V_{CB}=450V ; I_E=0$			0.1	mA
		2N6675	$V_{CB}=650V ; I_E=0$				
I_{EBO}	Emitter cut-off current		$V_{EB}=7V ; I_C=0$			1.0	mA
h_{FE-1}	DC current gain		$I_C=1A ; V_{CE}=3V$	15		40	
h_{FE-2}	DC current gain		$I_C=10A ; V_{CE}=2V$	8		20	
f_T	Transition frequency		$I_C=0.5A ; V_{CE}=10V ; f=1MHz$		15		MHz

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PACKAGE OUTLINE

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