

Silicon NPN Power Transistors

2N6753 2N6754

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($T_a =$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6753	Open emitter	900	V
		2N6754		1000	
V_{CEO}	Collector-emitter voltage		Open base	500	V
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		$T_C = 25$	150	W
T_j	Junction temperature			-65~175	
T_{stg}	Storage temperature			-65~200	

THERMAL CHARACTERISTICS

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

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CHARACTERISTICS

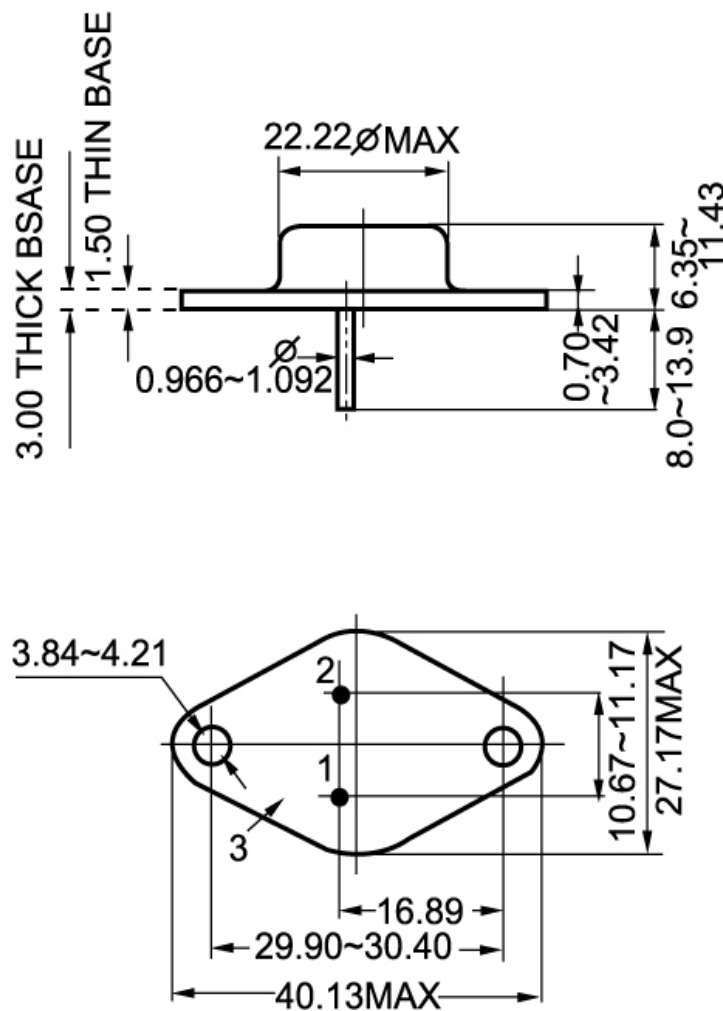
Tj=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage		$I_C=0.2A ; I_B=0$	500			V
$V_{CEsat-1}$	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	2N6753	$V_{CE}=900V ; V_{BE}=-1.5V$ $T_C=100$			0.1 1.0	mA
		2N6754	$V_{CE}=1000V ; V_{BE}=-1.5V$ $T_C=100$			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: $\pm 0.10\text{mm}$)