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

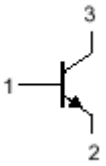

Fig.1 simplified outline (TO-3) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings(Ta=℃)

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
$R_{th\ j\text{-}c}$	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

PACKAGE OUTLINE

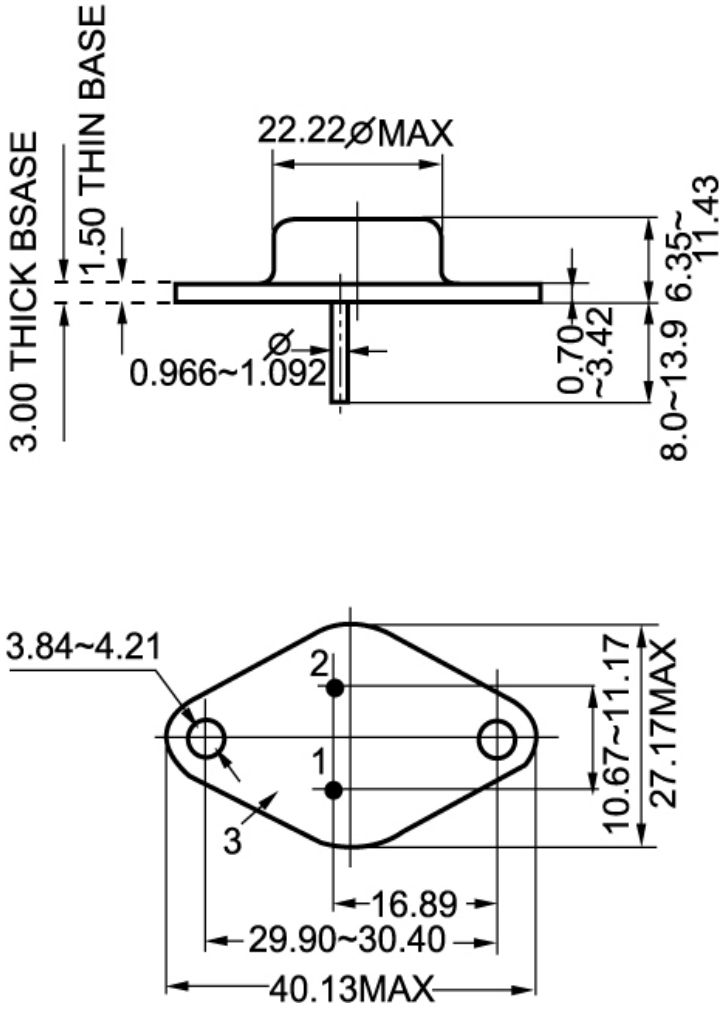

Fig.2 outline dimensions (unindicated tolerance:±0.10mm)