Silicon NPN Power Transistors 2N5050 2N5051 2N5052

DESCRIPTION

- With TO-66 package
- High breakdown voltage
- Excellent safe operating area

APPLICATIONS

- Designed for driver circuits,switching and amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Fig.1 simplified outline (TO-66) and symbol

Absolute maximum ratings(Ta=℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N5050	Open emitter	125	V
		2N5051		150	
		2N5052		200	
V_{CEO}	Collector-emitter voltage	2N5050	Open base	125	V
		2N5051		150	
		2N5052		200	
V_{EBO}	Emitter-base voltage		Open collector	7	V
I_C	Collector current			2	A
P_D	Total Power Dissipation		T_C=25℃	40	W
T_j	Junction temperature			150	℃
T_{stg}	Storage temperature			-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance junction to case	7.0	℃/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	2N5050	I_C=0.1A ;I_B=0	125			V
		2N5051		150			
		2N5052		200			
V_{CEsat}	Collector-emitter saturation voltage		I_C=2A; I_B=0.5A			1.2	V
V_{BEsat}	Base-emitter saturation voltage		I_C=2A; I_B=0.5A			1.5	V
V_{BE}	Base-emitter on voltage		I_C=750mA ; V_{CE}=5V			1.2	V
I_{CEO}	Collector cut-off current	2N4910	V_{CE}=125V; I_B=0			5.0	mA
		2N4911	V_{CE}=150V; I_B=0				
		2N4912	V_{CE}=200V; I_B=0				
I_{CBO}	Collector cut-off current		V_{CB}=Rated V_{CBO}; I_E=0			0.1	mA
I_{EBO}	Emitter cut-off current		V_{EB}=7V; I_C=0			1.0	mA
h_{FE}	DC current gain		I_C=750mA ; V_{CE}=5V	25		100	
f_T	Transition frequency		I_C=500mA;V_{CE}=10V;f=1MHz		10		MHz

PACKAGE OUTLINE

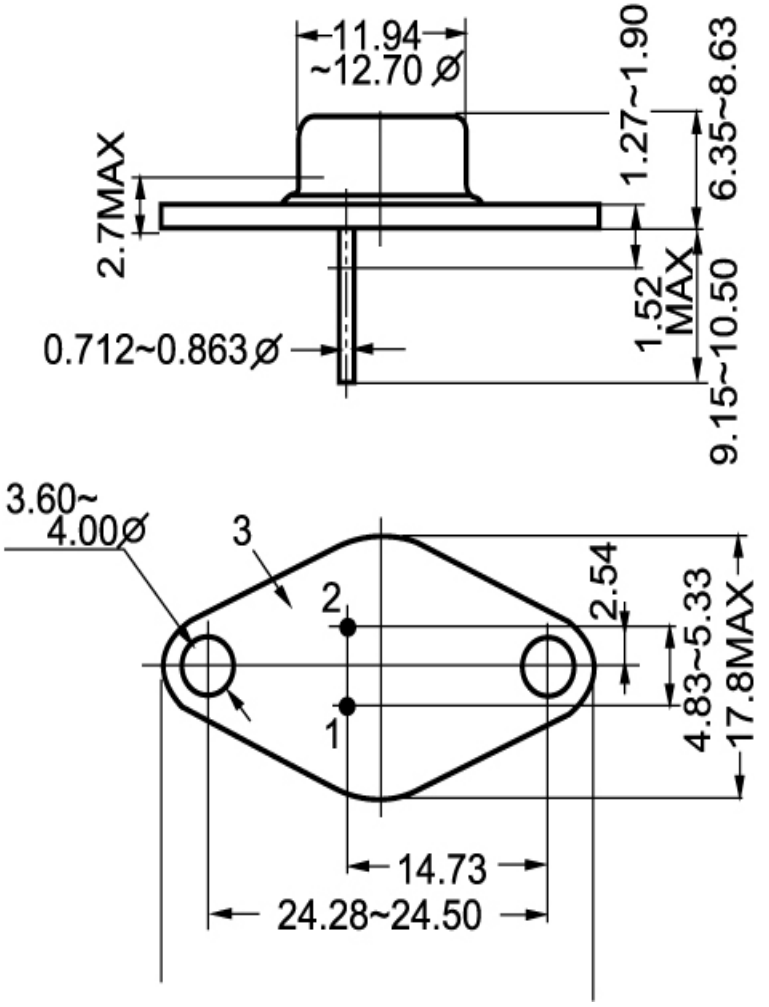

Fig.2 outline dimensions