

Silicon PNP Power Transistors

2SA1050

DESCRIPTION

- With TO-3 package
- High transition frequency
- Excellent safe operating area

APPLICATIONS

- For audio and general purpose power amplifier applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

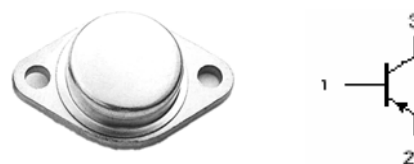


Fig.1 simplified outline (TO-3) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-140	V
V_{CEO}	Collector-emitter voltage	Open base	-140	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-12	A
P_C	Collector power dissipation	$T_C = 25^\circ\text{C}$	100	W
T_j	Junction temperature		175	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~200	$^\circ\text{C}$

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CHARACTERISTICS

 $T_j=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=-25\text{mA}$; $I_B=0$	-140			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=-1\text{mA}$; $I_E=0$	-140			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=-1\text{mA}$; $I_C=0$	-5			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=-8\text{A}$; $I_B=-0.8\text{A}$			-2.5	V
V_{BE}	Base-emitter on voltage	$I_C=-6\text{A}$; $V_{CE}=-5\text{V}$			-1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=-140\text{V}$; $I_E=0$			-10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=-5\text{V}$; $I_C=0$			-10	μA
h_{FE-1}	DC current gain	$I_C=-1\text{A}$; $V_{CE}=-5\text{V}$	55		160	
h_{FE-2}	DC current gain	$I_C=-6\text{A}$; $V_{CE}=-5\text{V}$	35			
f_T	Transition frequency	$I_C=-1\text{A}$; $V_{CE}=-10\text{V}$		70		MHz

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PACKAGE OUTLINE

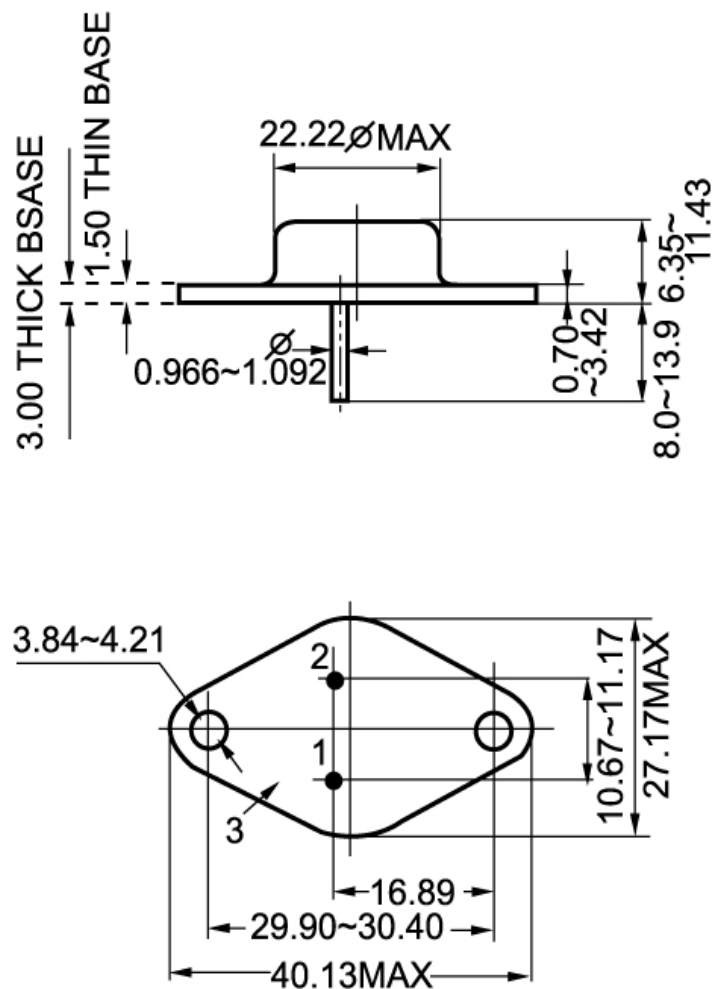


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.1\text{mm}$)