Silicon NPN Power Transistors 2SC1051

DESCRIPTION

- With TO-3 package
- Wide area of safe operation

APPLICATIONS

- For low frequency power amplifier and large power switching applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

Absolute maximum ratings(Ta=℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	150	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		7	A
P_C	Collector power dissipation	T_C=25℃	60	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=50mA ;I_B=0	100			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=1mA ;I_E=0	150			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=1mA ;I_C=0	5			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=5A; I_B=0.5A			2.0	V
V_{BE}	Base-emitter on voltage	I_C=1A ; V_{CE}=5V			1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=150V; I_E=0			0.1	mA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			0.1	mA
h_{FE}	DC current gain	I_C=1A ; V_{CE}=5V	40		320	
f_T	Transition frequency	I_C=0.5A ; V_{CE}=5V		8		MHz

◆ h_{FE} Classifications

C	D	E	F
40-80	60-120	100-200	160-320

PACKAGE OUTLINE

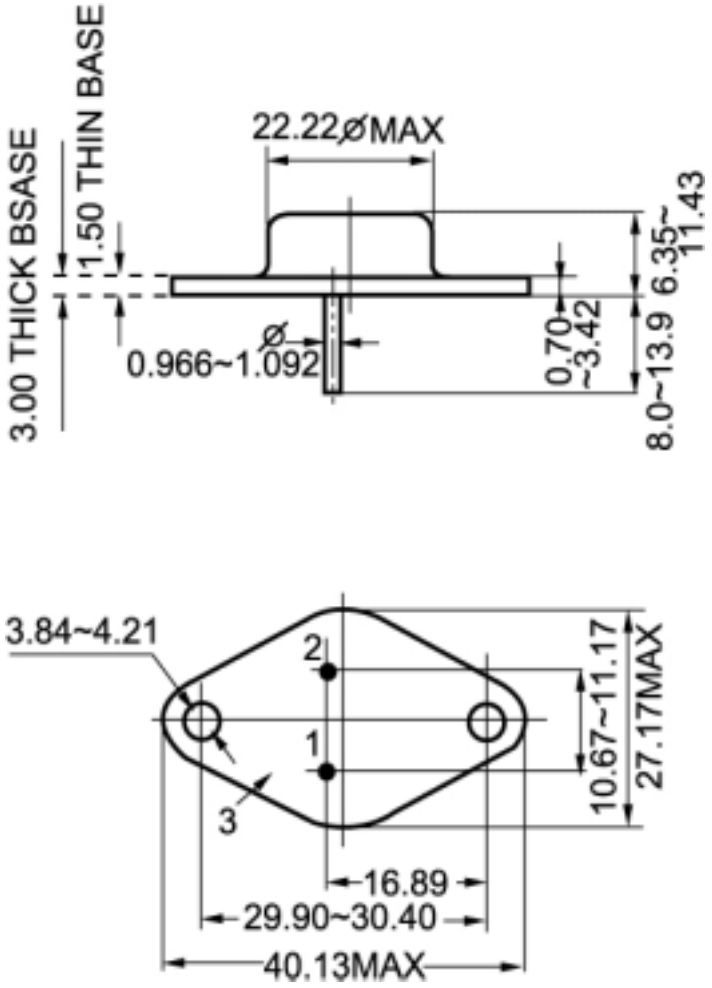


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)