

Silicon NPN Power Transistors

2SC1170

DESCRIPTION

- With TO-3 package
- High voltage ,high speed

APPLICATIONS

- Designed for use in large screen color deflection circuits

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

Absolute maximum ratings($T_a =$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1200	V
V_{CEO}	Collector-emitter voltage	Open base	500	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		3.5	A
I_B	Base current		1.0	A
P_C	Collector power dissipation	$T_C = 25$	50	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction case	2.5	/W

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CHARACTERISTICS

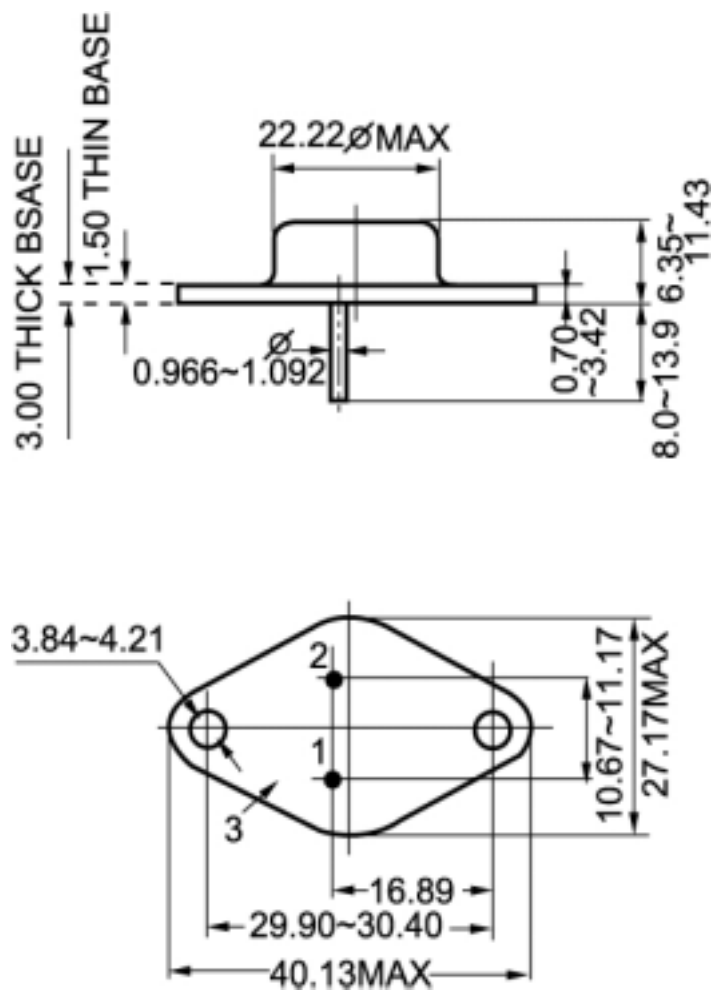
T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =100mA ; I _B =0	500			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2.5A; I _B =0.6A			10	V
V _{BEsat}	Base-emitter saturation voltage	I _C =2.5A; I _B =0.6A			1.2	V
I _{CES}	Collector cut-off current	V _{CE} =1200V; V _{BE} =0			1.0	mA
I _{CBO}	Collector cut-off current	V _{CB} =800V; I _E =0			20	μA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			20	μA
h _{FE-1}	DC current gain	I _C =0.5A ; V _{CE} =10V	10			
h _{FE-2}	DC current gain	I _C =2A ; V _{CE} =10V	5			
f _T	Transition frequency	I _C =0.5A ; V _{CE} =10V		4		MHz

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PACKAGE OUTLINE

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