

Silicon NPN Power Transistors

2SC2830

DESCRIPTION

- With TO-3 package
- High voltage ,high speed
- Wide area of safe operation

APPLICATIONS

- For switching regulator applications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	500	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		20	A
P_T	Total power dissipation	$T_{mb}=25^\circ\text{C}$	200	W
T_j	Junction temperature		200	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-mb}$	Thermal resistance from junction to mounting base	1.0	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.1A$; $I_B=0$	400			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=12A$; $I_B=2.4A$			1.2	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=12A$; $I_B=2.4A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=500V$; $I_E=0$			0.1	mA
I_{CEO}	Collector cut-off current	$V_{CE}=400V$; $I_B=0$			0.1	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=7V$; $I_C=0$			0.1	mA
h_{FE-1}	DC current gain	$I_C=2.4A$; $V_{CE}=5V$	15		50	
h_{FE-2}	DC current gain	$I_C=12A$; $V_{CE}=5V$	10			

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PACKAGE OUTLINE

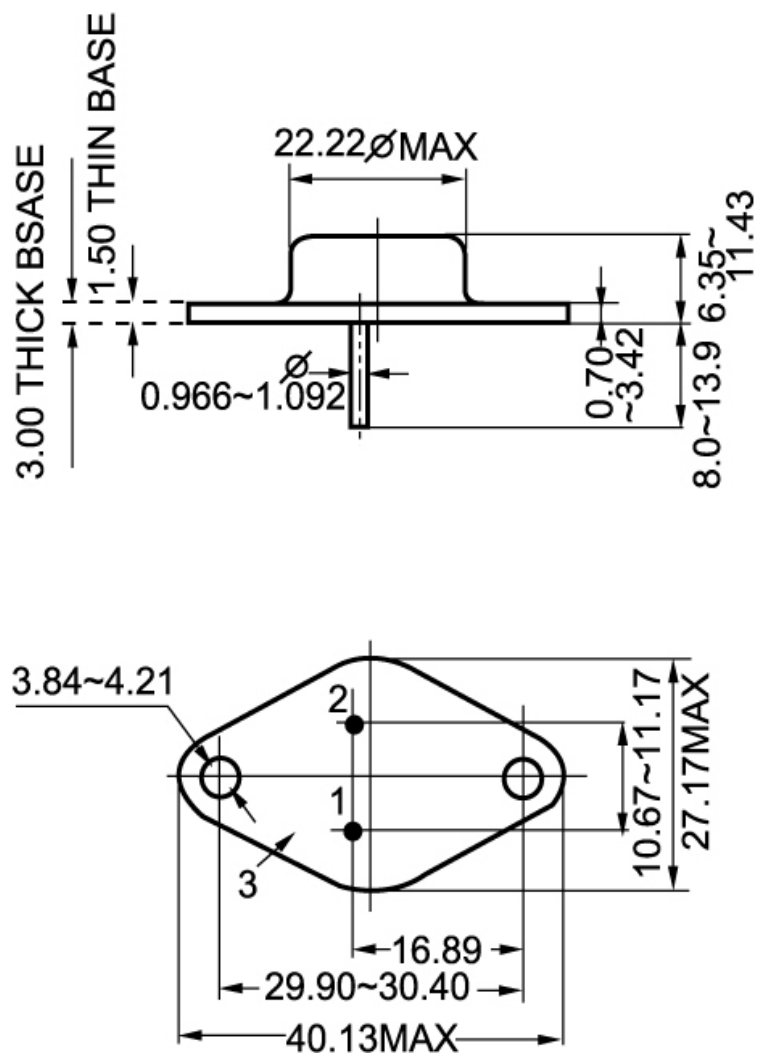


Fig.2 Outline dimensions