

Silicon NPN Power Transistors

2N6836

DESCRIPTION

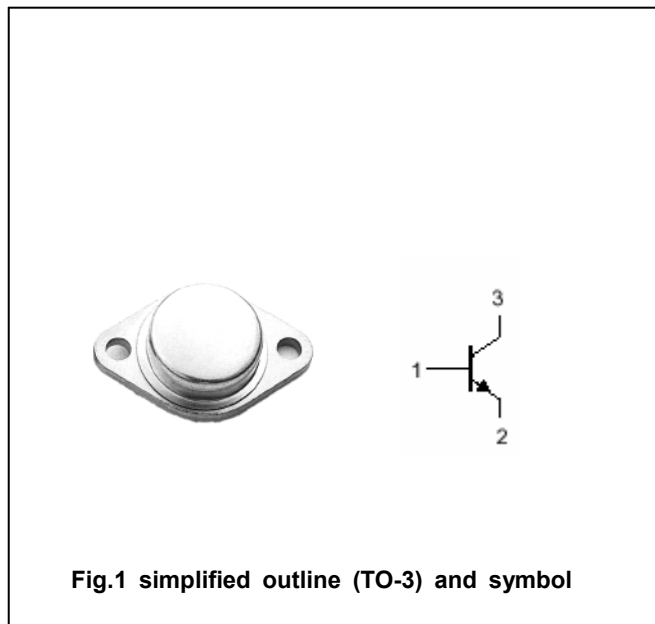
- With TO-3 package
- High voltage ,high speed

APPLICATIONS

- Switching regulators
- Inverters
- Motor controls
- Deflection circuits

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	850	V
V_{CEO}	Collector-emitter voltage	Open base	450	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		15	A
I_{CM}	Collector current-peak		20	A
I_B	Base current		10	A
I_{BM}	Base current-peak		15	A
P_C	Collector power dissipation	$T_C = 25\square$	175	W
T_j	Junction temperature		200	$\square$
T_{stg}	Storage temperature		-65~200	$\square$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.0	$\square/W$

Silicon NPN Power Transistors

2N6836

CHARACTERISTICS

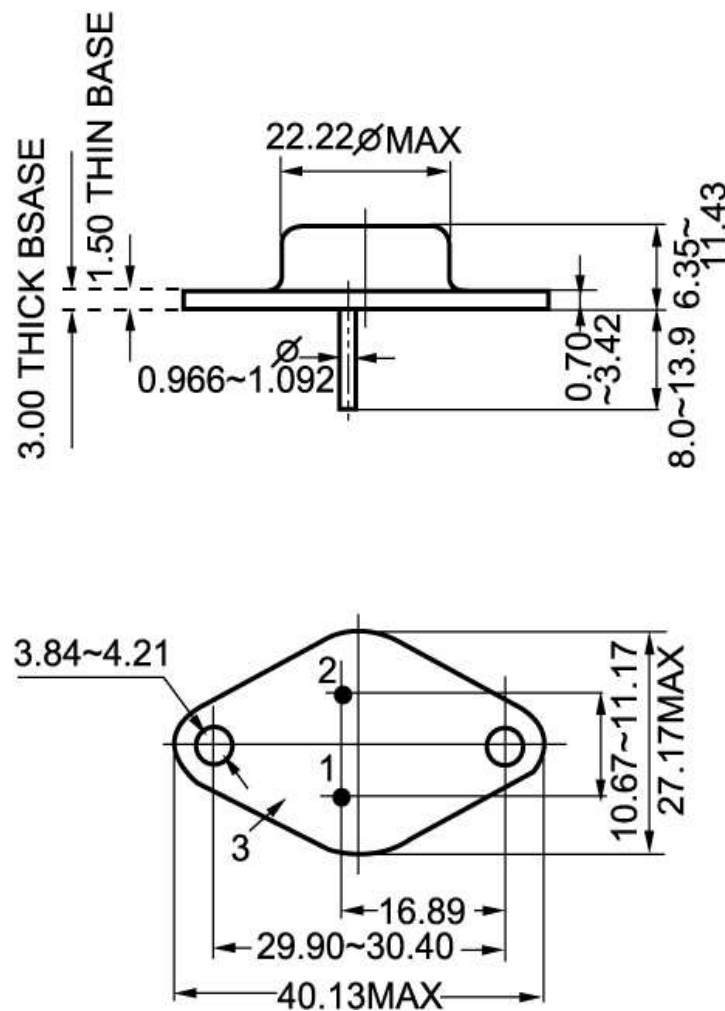
 $T_j=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.1\text{A}$; $I_B=0$	450			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	$I_C=5\text{A}$; $I_B=0.7\text{A}$			1.2	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	$I_C=10\text{A}$; $I_B=1.0\text{A}$ $T_C=100^\circ\text{C}$			2.5 3.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=10\text{A}$; $I_B=1.0\text{A}$ $T_C=100^\circ\text{C}$			1.5 1.5	V
I_{CEV}	Collector cut-off current	$V_{CE}=850\text{V}$; $V_{BE}=-1.5\text{V}$ $T_C=100^\circ\text{C}$			0.25 1.5	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=6\text{V}$; $I_C=0$			1.0	mA
h_{FE-1}	DC current gain	$I_C=10\text{A}$; $V_{CE}=5\text{V}$	8		30	
h_{FE-2}	DC current gain	$I_C=15\text{A}$; $V_{CE}=5\text{V}$	5			
C_{OB}	Output capacitance	$I_E=0$; $V_{CB}=10\text{V}$; $f=1\text{MHz}$	50		400	pF
f_T	Transition frequency	$I_C=0.25\text{A}$; $V_{CE}=10\text{V}$; $f=10\text{MHz}$	10		75	MHz

Silicon NPN Power Transistors

2N6836

PACKAGE OUTLINE

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