

Silicon NPN Power Transistors

2SC2437

DESCRIPTION

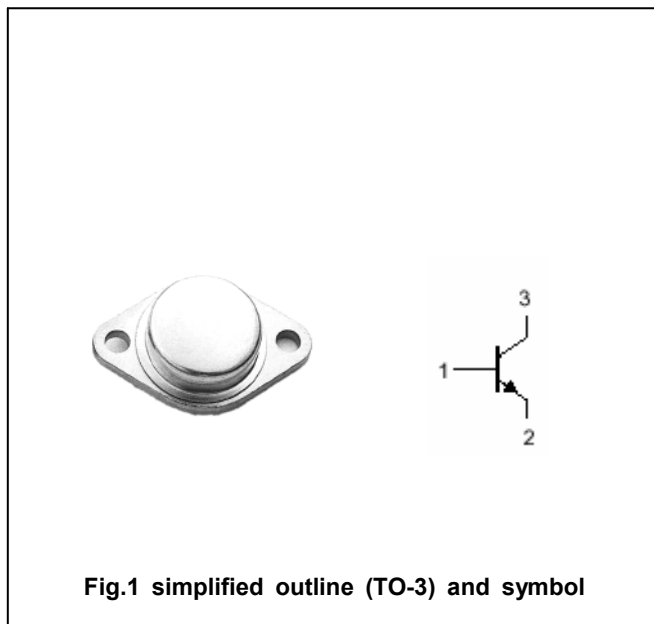
- With TO-3 package
- High voltage,high speed switching
- High reliability

APPLICATIONS

- Switching regulators
- DC-DC convertor
- Solid state relay
- General purpose power amplifiers

PINNING(see Fig.2)

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	450	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		7	A
I_B	Base current		2	A
P_C	Collector power dissipation	$T_C = 25 \square$	100	W
T_j	Junction temperature		150	$\square$
T_{stg}	Storage temperature		-55~150	$\square$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA ; I_B=0$	400			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=1mA ; I_E=0$	450			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=0.1mA ; I_C=0$	7			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=7A ; I_B=1.4A$			1.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=7A ; I_B=1.4A$			1.2	V
I_{CBO}	Collector cut-off current	$V_{CB}=450V ; I_E=0$			1.0	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=7V ; I_C=0$			0.1	mA
h_{FE}	DC current gain	$I_C=3A ; V_{CE}=4V$	10			

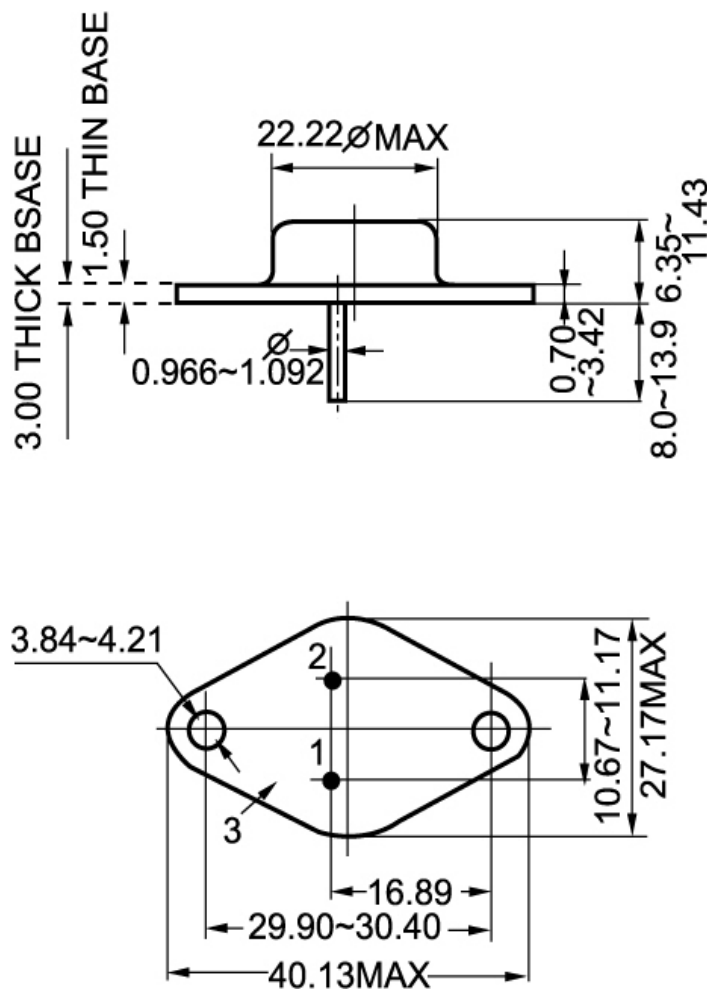
Switching times

t_{on}	Turn-on time	$I_C=7A ; I_{B1}=-I_{B2}=1.4A$ $R_L=30\Omega ; P_W=20\mu s ; Duty \leq 2\%$			1.5	μs
t_{stg}	Storage time				3.0	μs
t_f	Fall time				1.5	μs

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PACKAGE OUTLINE

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