

Silicon NPN Power Transistors

2SD1186

DESCRIPTION

- With TO-3 package
- High breakdown voltage
- High speed switching

APPLICATIONS

- Power switching applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

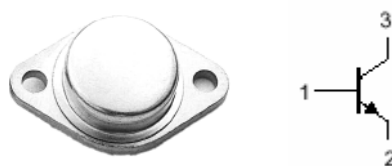


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	800	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		5	A
I_{CM}	Collector current-peak		7	A
P_C	Collector power dissipation	$T_C = 25\square$	50	W
T_j	Junction temperature		150	$\square$
T_{stg}	Storage temperature		-45~150	$\square$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10mA$; $I_C=0$	6			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA$; $R_{BE}=\infty$	800			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=4A$; $I_B=0.8A$			5.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=4A$; $I_B=0.8A$			1.5	V
I_{CES}	Collector cut-off current	$V_{CE}=1500V$; $R_{BE}=0$			0.5	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=6V$; $I_C=0$			0.1	mA
h_{FE}	DC current gain	$I_C=0.3A$; $V_{CE}=5V$	10		30	

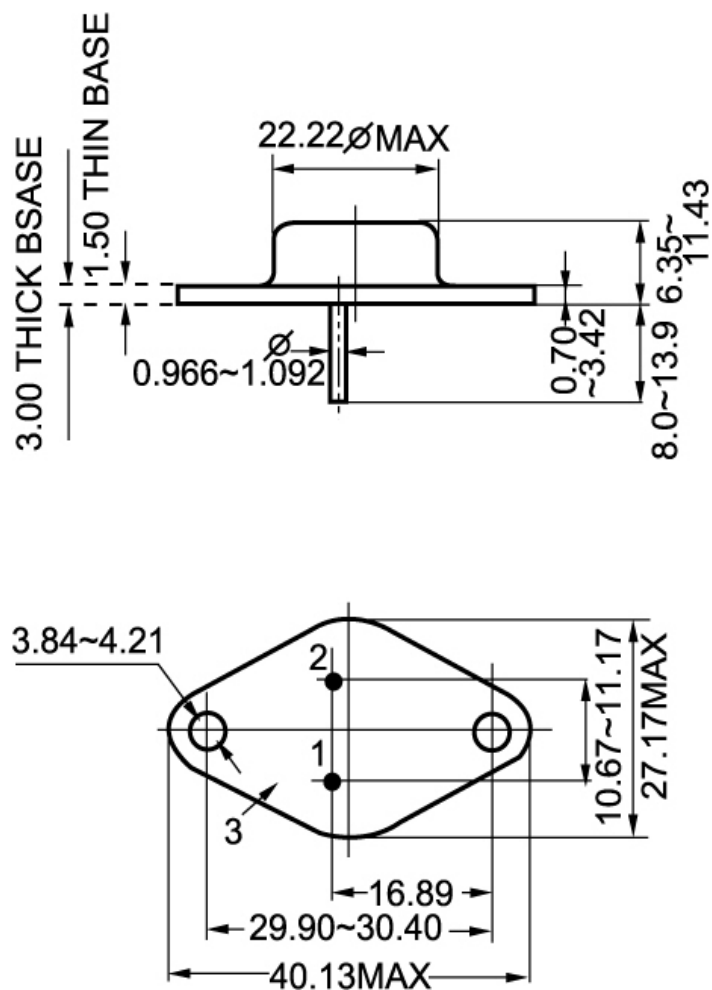
Switching times

t_f	Fall time	$I_C=4A$; $I_{B1}=0.8A$; $I_{B2}=-2A$			1.0	μs
t_s	Storage time			1.0		μs

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PACKAGE OUTLINE

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