

Silicon NPN Power Transistors

2SC2791

DESCRIPTION

- With TO-3 package
- High collector breakdown voltage
- Excellent switching times

APPLICATIONS

- High speed and high voltage switching
- Switching regulator
- High speed DC-DC converter

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

ABSOLUTE MAXIMUM RATINGS($T_C=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	900	V
V_{CEO}	Collector-emitter voltage	Open base	800	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		5	A
I_B	Base current		3	A
P_C	Collector power dissipation	$T_C=25^{\circ}\text{C}$	100	W
T_j	Junction temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-55~150	$^{\circ}\text{C}$

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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	$I_C=10mA ; I_B=0$	800			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=1mA ; I_E=0$	900			V
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=3A ; I_B=0.6A$			1.0	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=3A ; I_B=0.6A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=800V ; I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=7V ; I_C=0$			1	mA
h_{FE-1}	DC current gain	$I_C=10mA ; V_{CE}=5V$	10			
h_{FE-2}	DC current gain	$I_C=3A ; V_{CE}=5V$	10			

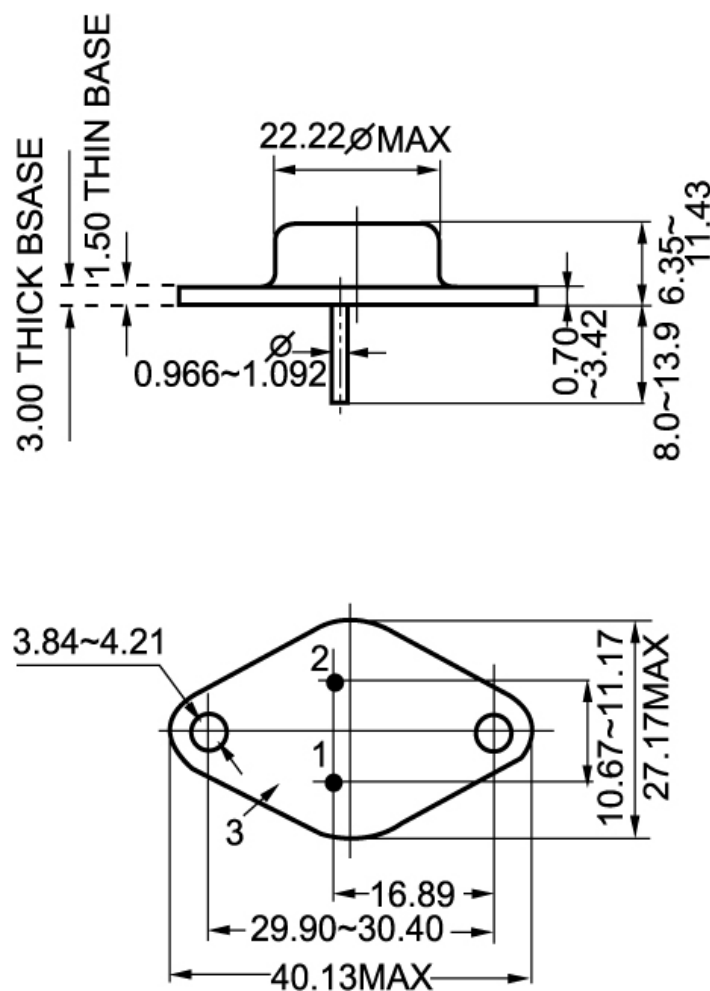
Switching times

t_r	Rise time	$V_{CC}=400V , I_C=3A , I_{B1}=0.3A ; I_{B2}=-0.8A$			1.0	μs
t_{stg}	Storage time				3.5	μs
t_f	Fall time				1.0	μs

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PACKAGE OUTLINE

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