

Silicon NPN Power Transistors

2SD1680

DESCRIPTION

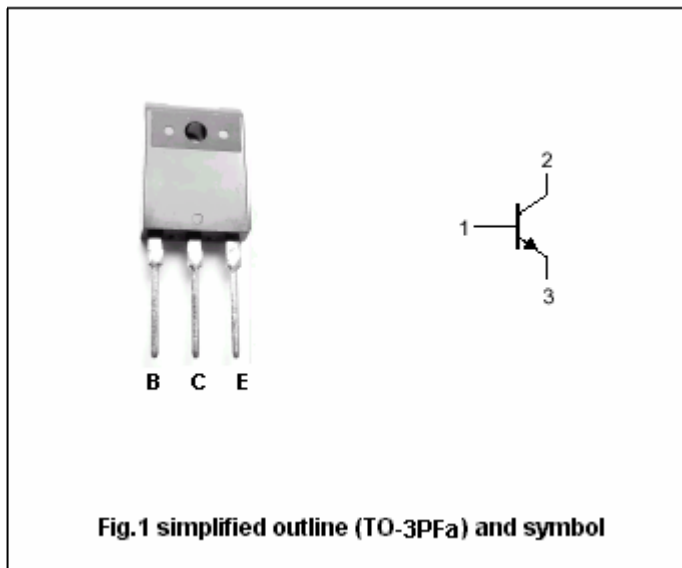
- With TO-3PFa package
- High speed switching
- High V_{CBO}
- Large collector power dissipation

APPLICATIONS

- For horizontal deflection output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	330	V
V_{CEO}	Collector-emitter voltage	Open base	200	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current (DC)		7	A
I_{CM}	Collector current (Pulse)		10	A
P_C	Collector power dissipation	$T_a=25^\circ\text{C}$	3	W
		$T_c=25^\circ\text{C}$	70	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =30mA ; I _B =0	200			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA; I _E =0	330			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A; I _B =0.5A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A; I _B =0.5A			1.2	V
I _{CES}	Collector cut-off current	V _{CE} =330V; V _{BE} =0 T _a =100 °C			1 15	mA
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			1	mA
h _{FE}	DC current gain	I _C =5A ; V _{CE} =4V	15			
t _f	Fall time	I _C =5A I _{B1} =0.8A, V _{EB} =-5V, R _B =0.5Ω			0.75	μs

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PACKAGE OUTLINE

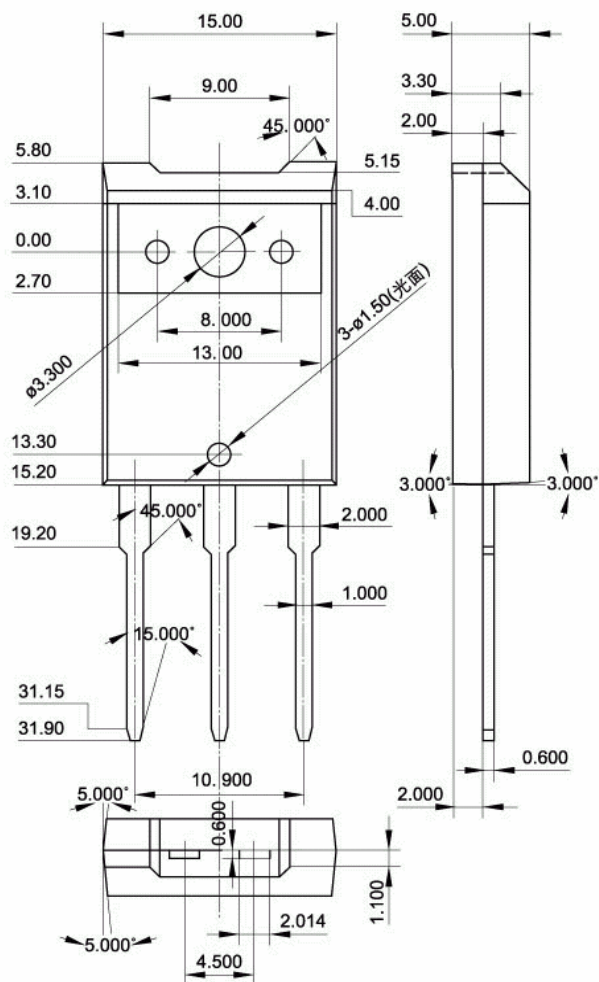


Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)