

Silicon NPN Power Transistors

2SD1591

DESCRIPTION

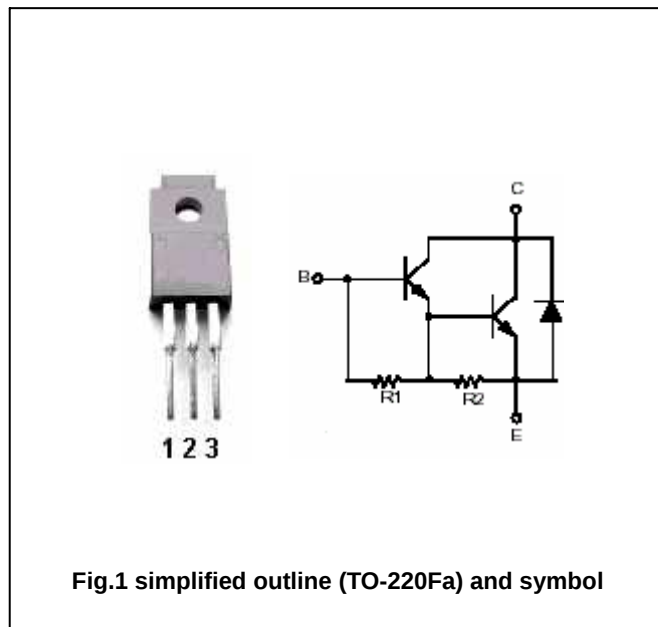
- With TO-220Fa package
- DARLINGTON
- Complement to type 2SB1100

APPLICATIONS

- Low frequency power amplification
- Low speed power switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	150	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current (DC)		10	A
I_{CM}	Collector current-Peak		15	A
I_B	Base current (DC)		0.5	A
P_C	Collector power dissipation	$T_a=25$	2	W
		$T_C=25$	30	
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

Silicon NPN Power Transistors**2SD1591****CHARACTERISTICS****T_j=25** unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.1A ; I _B =0	100			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =10A; I _B =25mA			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =10A; I _B =25mA			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =100V; I _E =0			10	μ A
I _{CEO}	Collector cut-off current	V _{CE} =100V; I _E =0			500	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =7V ; I _C =0			5	mA
h _{FE}	DC current gain	I _C =10A ; V _{CE} =2V	1000		30000	

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PACKAGE OUTLINE

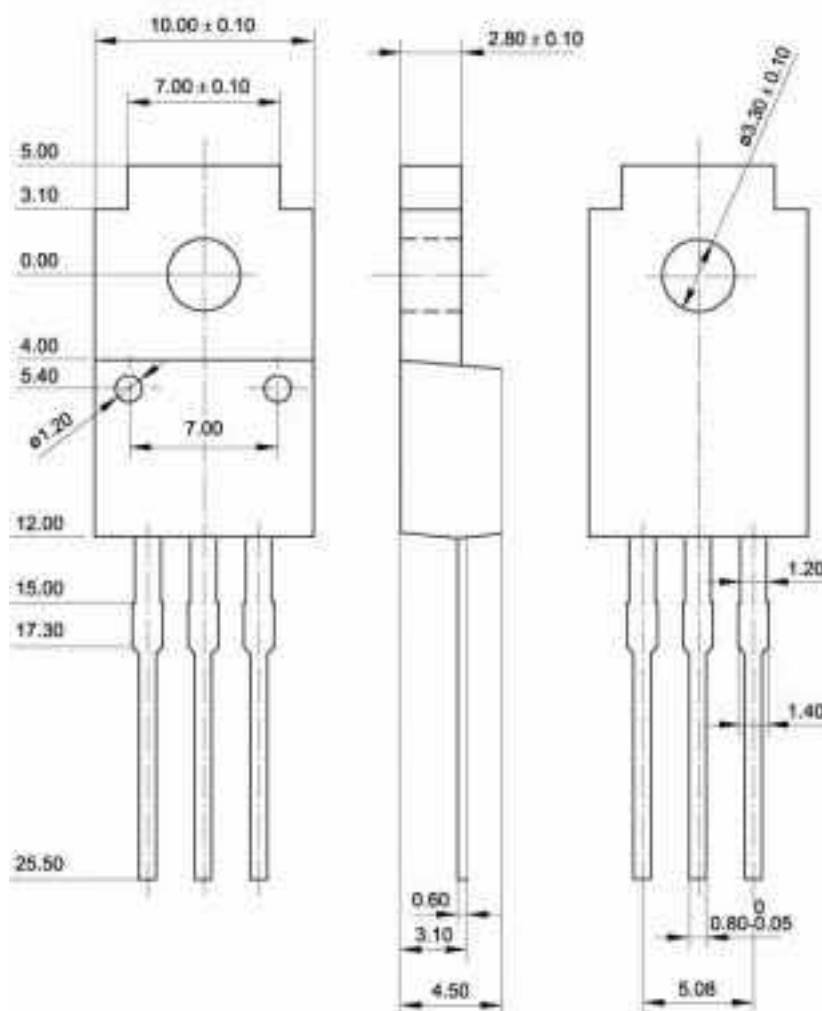


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)