

Silicon NPN Power Transistors

2SD1933

DESCRIPTION

www.datasheet4u.com

- With TO-220Fa package
- DARLINGTON
- Complement to type 2SB1342
- High DC current gain

APPLICATIONS

- Low frequency power amplification

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

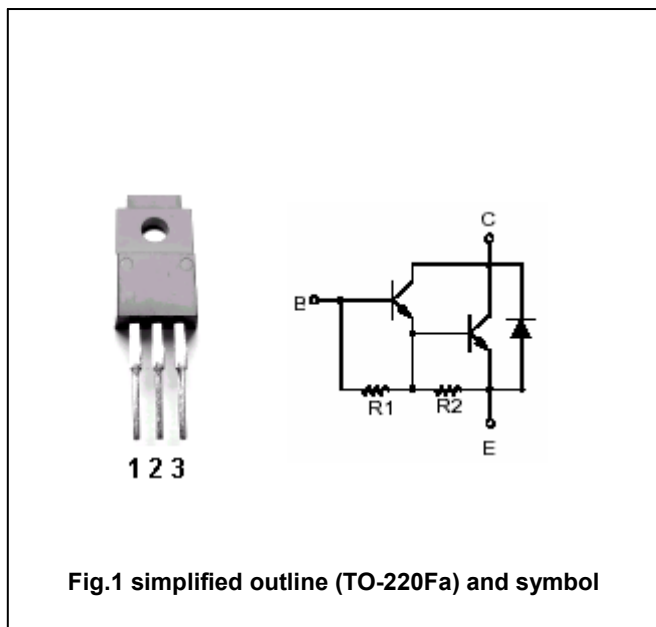


Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CB0}	Collector-base voltage	Open emitter	80	V
V _{CEO}	Collector -emitter voltage	Open base	80	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		4	A
I _{CM}	Collector current-peak		6	A
P _C	Collector power dissipation	T _C =25°C	30	W
		T _a =25°C	2	
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

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CHARACTERISTICS

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 $T_j=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=50\mu\text{A}; I_E=0$	80			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=1\text{mA}; I_B=0$	80			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2\text{A}; I_B=4\text{mA}$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=80\text{V}; I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5\text{V}; I_C=0$			3.0	mA
h_{FE}	DC current gain	$I_C=2\text{A}; V_{CE}=3\text{V}$	1000		10000	
f_T	Transition frequency	$I_E=-0.2\text{A}; V_{CE}=5\text{V}; f=10\text{MHz}$		40		MHz
C_{OB}	Output capacitance	$I_E=0; V_{CB}=10\text{V}; f=1\text{MHz}$		35		pF

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PACKAGE OUTLINE

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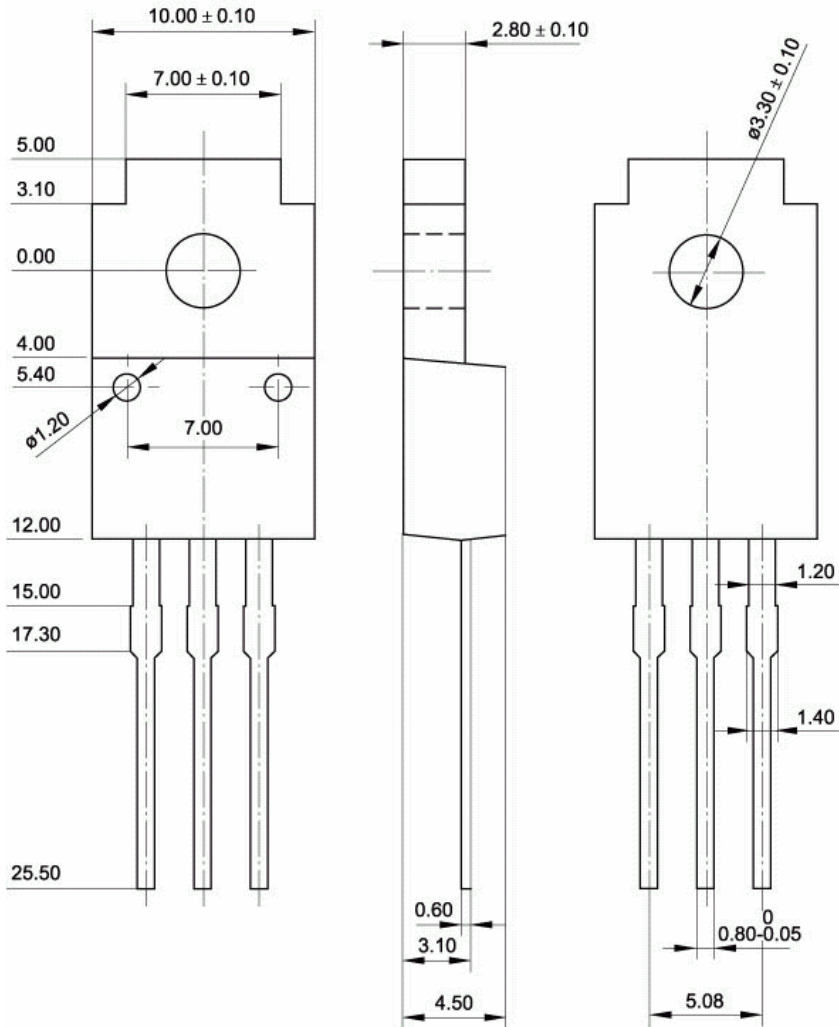


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)