

Silicon NPN Power Transistors

2SD1933

DESCRIPTION

- 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

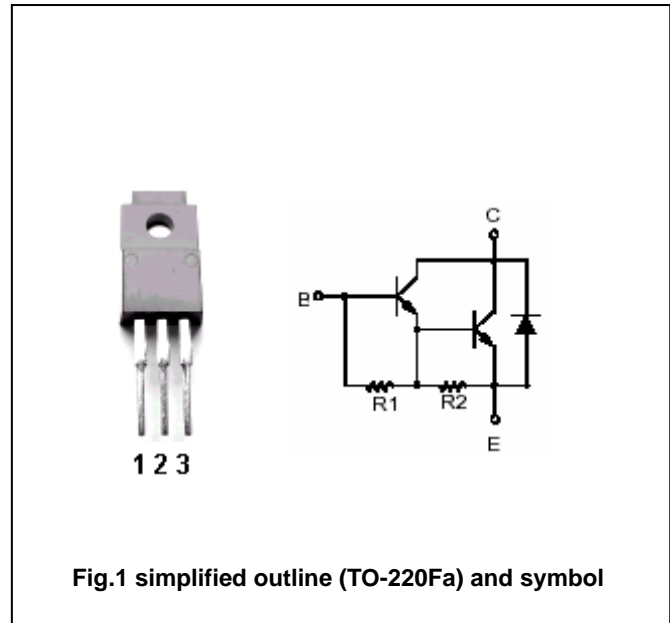


Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	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	$T_C=25^\circ C$	30	W
		$T_a=25^\circ C$	2	
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-55~150	°C

Silicon NPN Power Transistors

2SD1933

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =50 μ A; I _E =0	80			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =1mA; I _B =0	80			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2A ; I _B =4mA			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =80V; I _E =0			100	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			3.0	mA
h _{FE}	DC current gain	I _C =2A ; V _{CE} =3V	1000		10000	
f _T	Transition frequency	I _E =-0.2A ; V _{CE} =5V; f=10MHz		40		MHz
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V; f=1MHz		35		pF

PACKAGE OUTLINE

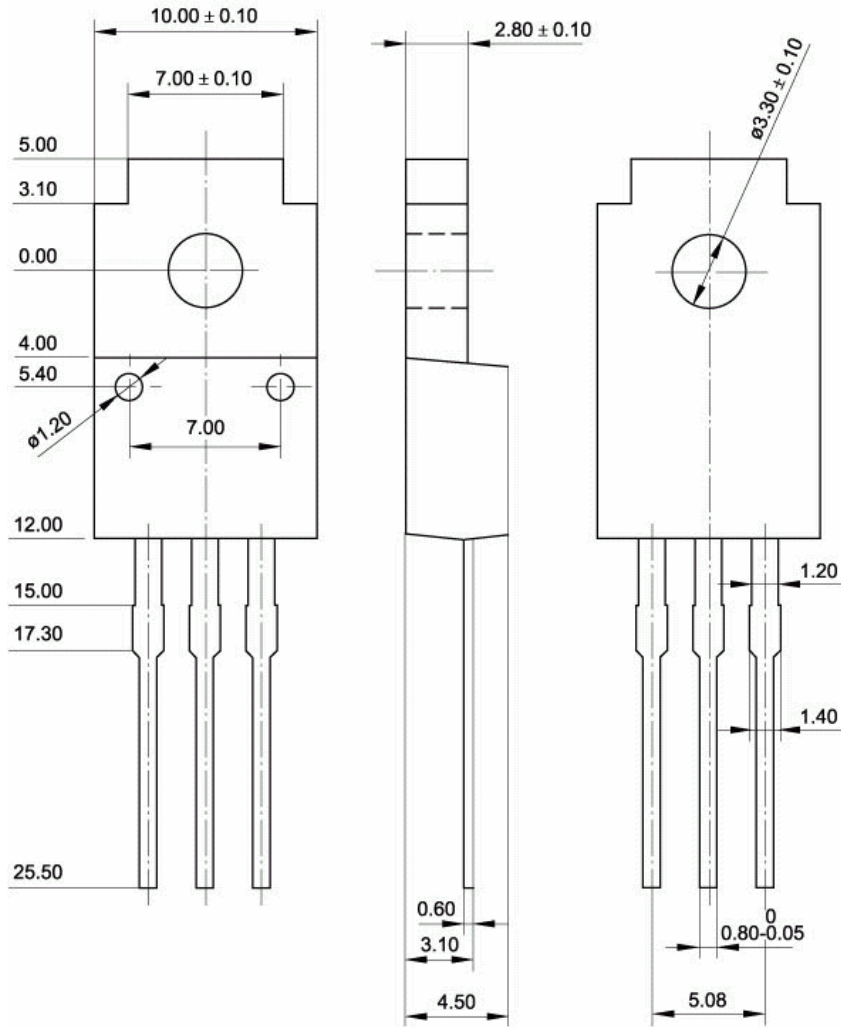


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)