

Silicon NPN Power Transistors

2SC3944 2SC3944A

DESCRIPTION

- With TO-220Fa package
- Complement to type 2SA1535/1535A
- High transition frequency

APPLICATIONS

- For low-frequency driver and high power amplification
- Optimum for the driver-stage of a 60W to 100W output amplifier

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

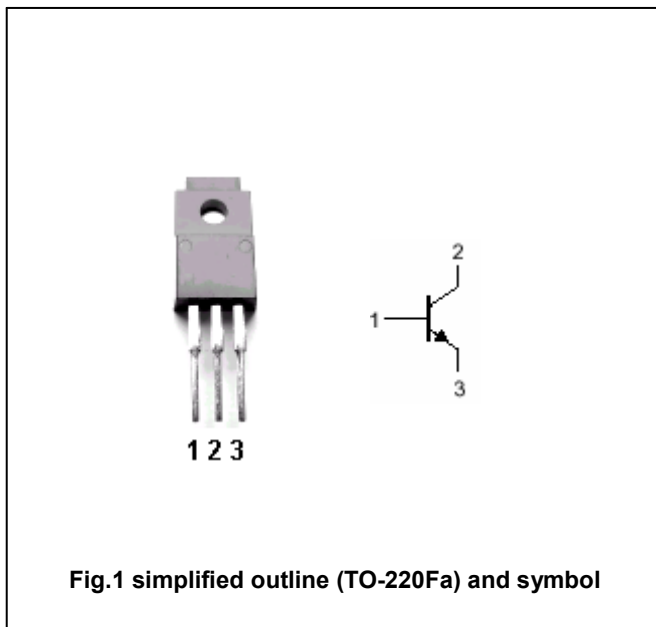


Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SC3944	150	V
		2SC3944A	180	
V _{CEO}	Collector-emitter voltage	2SC3944	150	V
		2SC3944A	180	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		1.0	A
I _{CM}	Collector current-peak		1.5	A
P _C	Collector power dissipation	T _a =25°C	2.0	W
		T _C =25°C	15	
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°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	2SC3944	I _C =1mA; I _B =0	150			V
		2SC3944A		180			
V _{(BR)EBO}	Emitter-base breakdown voltage		I _E =10μA; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage		I _C =0.5 A; I _B =50m A			2.0	V
V _{BEsat}	Base-emitter saturation voltage		I _C =0.5 A; I _B =50m A			2.0	V
I _{CBO}	Collector cut-off current	2SC3944	V _{CB} =150V; I _E =0			10	μA
		2SC3944A	V _{CB} =180V; I _E =0				
h _{FE-1}	DC current gain		I _C =150mA ; V _{CE} =10V	95		220	
h _{FE-2}	DC current gain		I _C =500mA ; V _{CE} =5V	50			
f _T	Transition frequency		I _C =50mA ; V _{CB} =10V		200		MHz
C _{OB}	Output capacitance		I _E =0; V _{CB} =10V; f=1MHz		30		pF

◆ h_{FE} classifications

Q	R
95-155	130-220

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PACKAGE OUTLINE

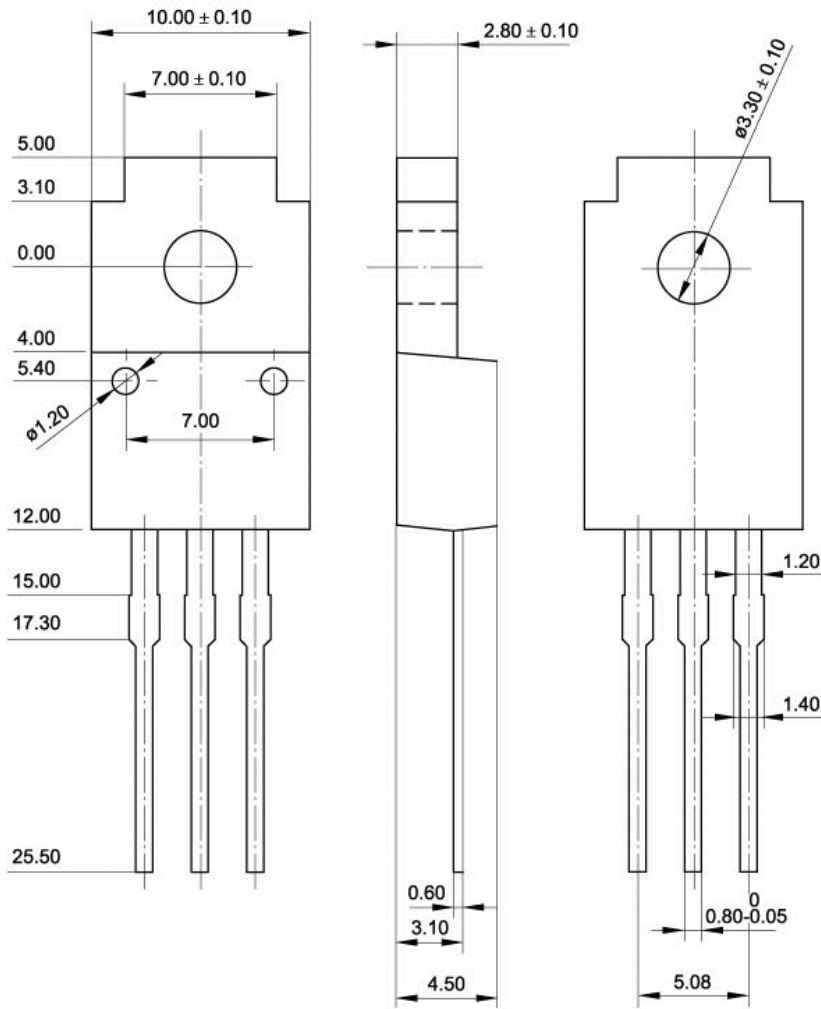


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)