

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

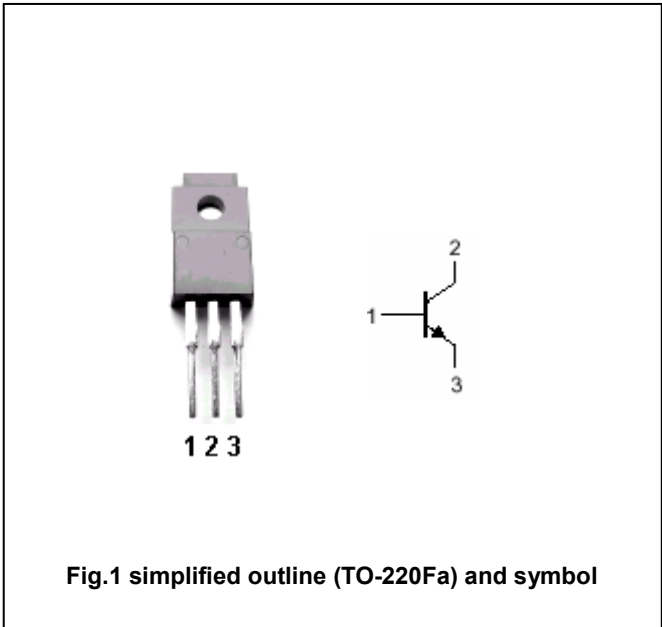


Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SC3944	Open emitter	150	V
		2SC3944A		180	
V _{CEO}	Collector-emitter voltage	2SC3944	Open base	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℃	2.0	W
			T _C =25℃	15	
T _j	Junction temperature			150	℃
T _{stg}	Storage temperature			-55~150	℃

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CHARACTERISTICS

Tj=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		$I_E=10\mu A; I_C=0$	5			V
V_{CEsat}	Collector-emitter saturation voltage		$I_C=0.5A; I_B=50mA$			2.0	V
V_{BEsat}	Base-emitter saturation voltage		$I_C=0.5A; I_B=50mA$			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

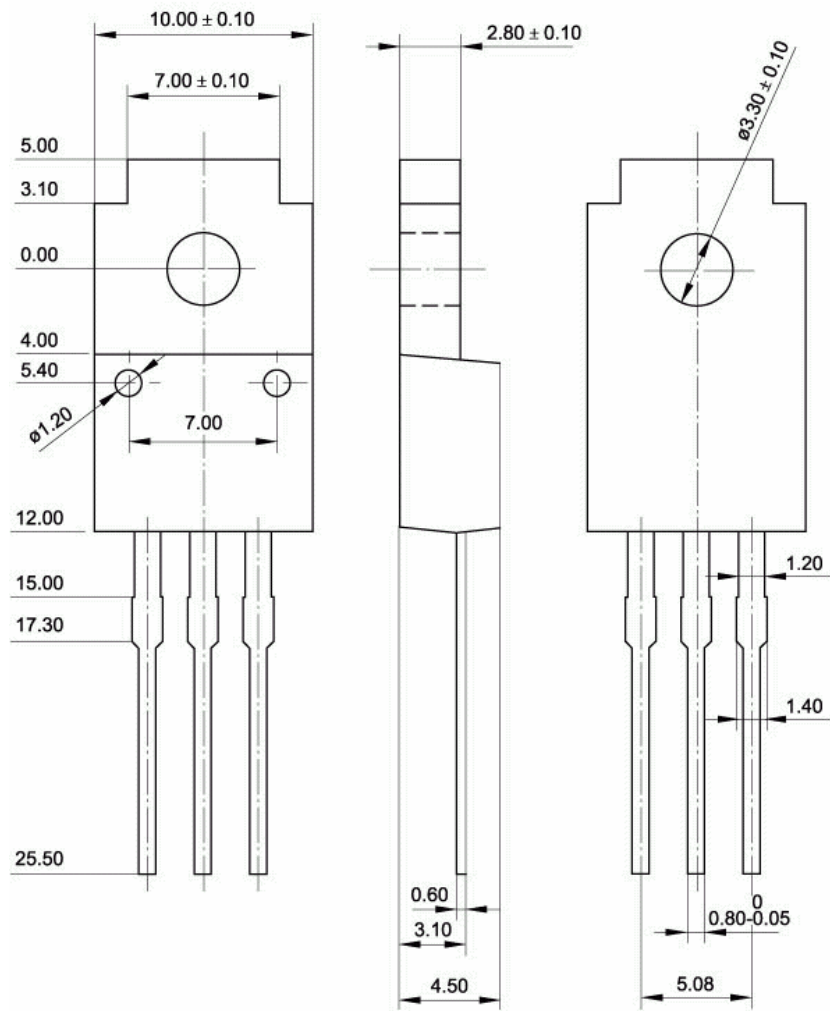


Fig.2 Outline dimensions (unindicated tolerance:±0.15 mm)