

Silicon NPN Power Transistors

2SC3794 2SC3794A

DESCRIPTION

- With TO-220Fa package
- High V_{CBO}
- High speed switching
- Low collector saturation voltage

APPLICATIONS

- For high speed switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

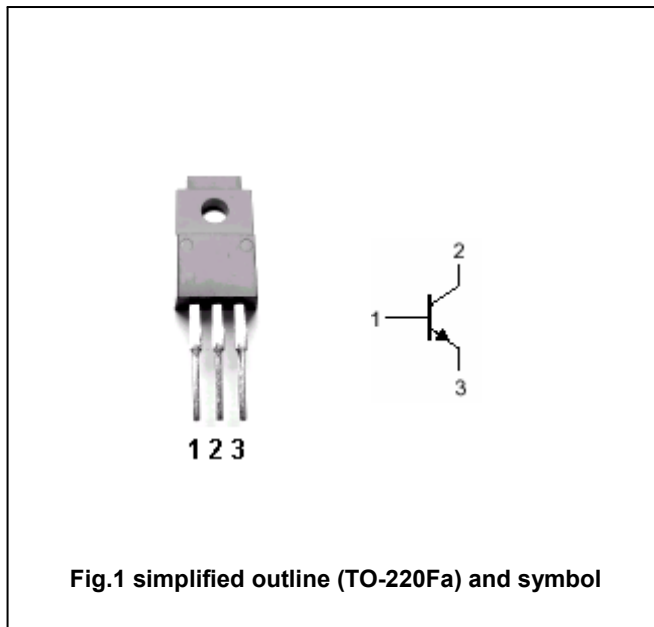


Fig.1 simplified outline (TO-220Fa) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC3794	800	V
		2SC3794A	900	
V_{CEO}	Collector-emitter voltage	Open base	500	V
V_{EBO}	Emitter-base voltage	Open collector	8	V
I_C	Collector current (DC)		1.5	A
I_{CM}	Collector current-Peak		3.0	A
I_B	Base current		0.5	A
P_C	Collector power dissipation	$T_C=25^\circ C$	25	W
		$T_a=25^\circ C$	2	
T_j	Junction temperature		150	$^\circ C$
T_{stg}	Storage temperature		-55~150	$^\circ C$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.2A, L=25mH	500			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =1A; I _B =0.2A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =1A; I _B =0.2A			1.5	V
I _{CBO}	Collector cut-off current	2SC3794			0.1	mA
		2SC3794A				
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			0.1	mA
h _{FE-1}	DC current gain	I _C =0.1A; V _{CE} =5V	15			
h _{FE-2}	DC current gain	I _C =1A; V _{CE} =5V	8			
f _T	Transition frequency	I _C =0.2A; V _{CE} =10V		8		MHz

Switching times

t _{on}	Turn-on time	2SC3794				1.0	μs
		2SC3794A				1.2	
t _s	Storage time		I _C =1A; I _{B1} =-I _{B2} =0.2A V _{CC} =200V			3.0	μs
t _f	Fall time	2SC3794				1.0	μs
		2SC3794A				1.2	

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PACKAGE OUTLINE

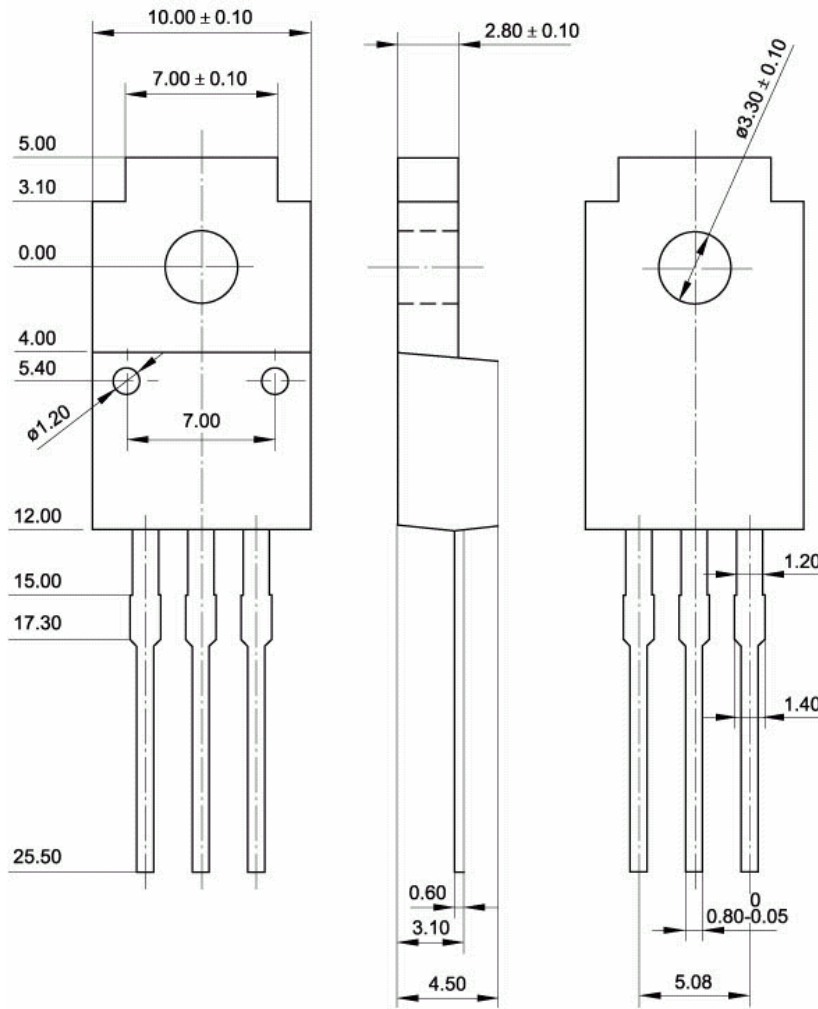


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)