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

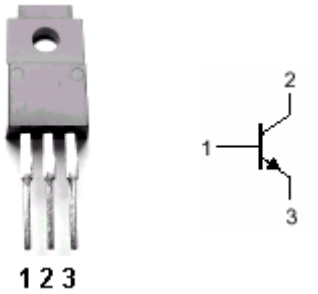

Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC3794	Open emitter	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℃	25	W
			T_a=25℃	2	
T_j	Junction temperature			150	℃
T_{stg}	Storage temperature			-55~150	℃

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CHARACTERISTICS

Tj=25℃ 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	V_{CB}=800V; I_E=0			0.1	mA
		2SC3794A	V_{CB}=900V; I_E=0				
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	I_C=1A; I_{B1}=- I_{B2}=0.2A V_{CC}=200V			1.0	μs
		2SC3794A				1.2	
t_s	Storage time					3.0	μs
t_f	Fall time	2SC3794				1.0	μs
		2SC3794A				1.2	

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PACKAGE OUTLINE

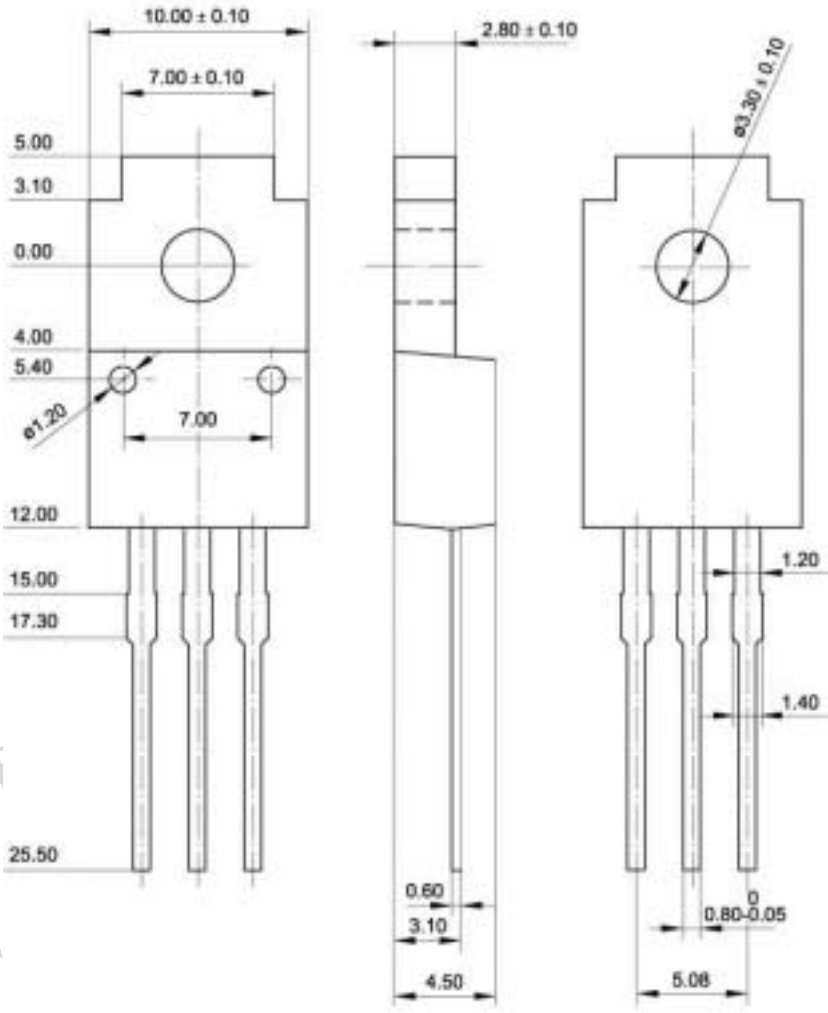

Fig.2 Outline dimensions (unindicated tolerance:±0.15 mm)