Silicon NPN Power Transistors 2SC3795 2SC3795A

DESCRIPTION

- ·With TO-220Fa package
- ·High breakdown voltage
- ·High speed switching
- ·Low collector saturation voltage

APPLICATIONS

- ·For high breakdown voltate ,high-speed switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

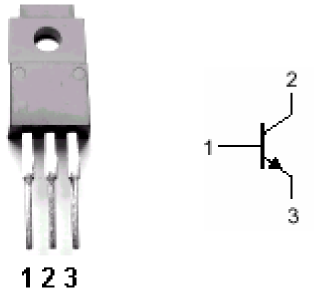

Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings (Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC3795	Open emitter	800	V
		2SC3795A		900	
V_{CEO}	Collector-emitter voltage		Open base	500	V
V_{EBO}	Emitter-base voltage		Open collector	8	V
I_C	Collector current (DC)			5	A
I_{CM}	Collector current-Peak			10	A
I_B	Base current			3	A
P_C	Collector power dissipation		T_C=25□	40	W
			T_a=25□	2	
T_j	Junction temperature			150	□
T_{stg}	Storage temperature			-55~150	□

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=3A; I_B=0.6A			1.0	V
V_{BEsat}	Base-emitter saturation voltage		I_C=3A ;I_B=0.6A			1.5	V
I_{CBO}	Collector cut-off current	2SC3795	V_{CB}=800V; I_E=0			0.1	mA
		2SC3795A	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=3A ; V_{CE}=5V	8			
f_T	Transition frequency		I_C=0.5A ; V_{CE}=10V		8		MHz

Switching times

t_{on}	Turn-on time	2SC3795	I_C=3A; I_{B1}=- I_{B2}=0.6A V_{CC}=200V			1.0	μs
		2SC3795A				1.2	
t_s	Storage time					3.0	μs
t_f	Fall time	2SC3795				1.0	μs
		2SC3795A				1.2	

PACKAGE OUTLINE

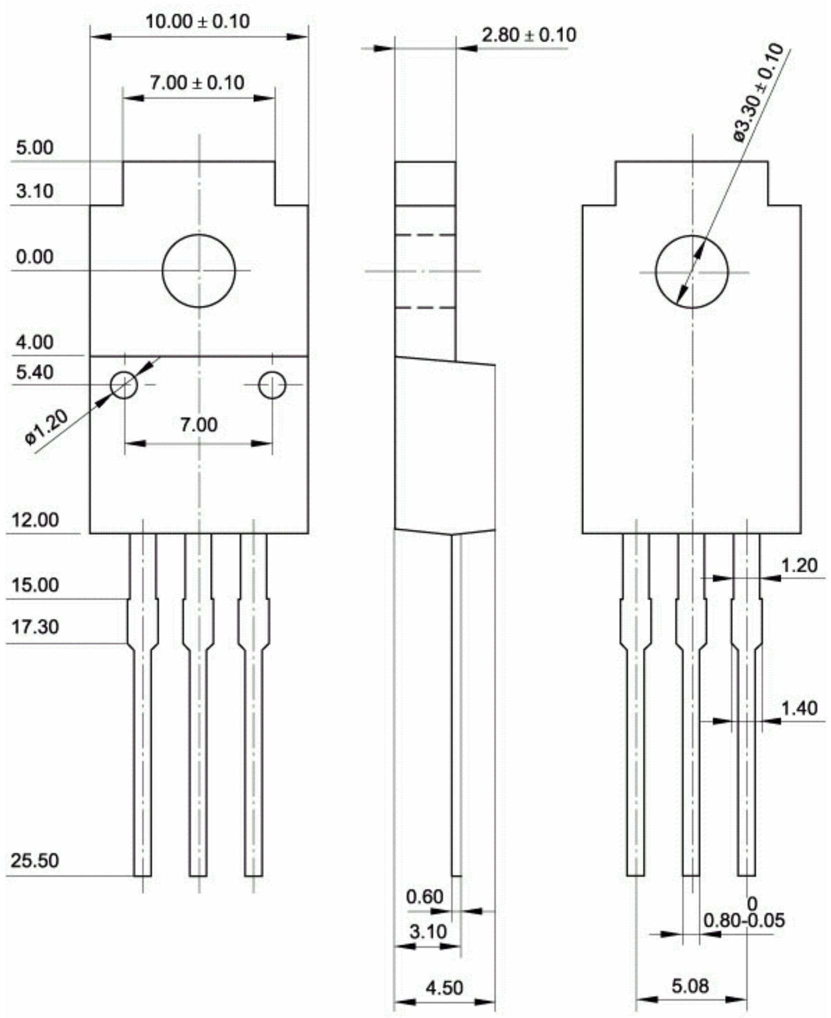

Fig.2 Outline dimensions (unindicated tolerance:±0.15 mm)

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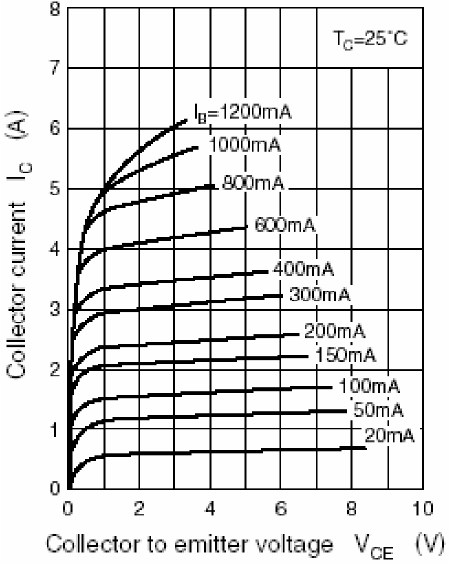

Fig.3 Static Characteristic

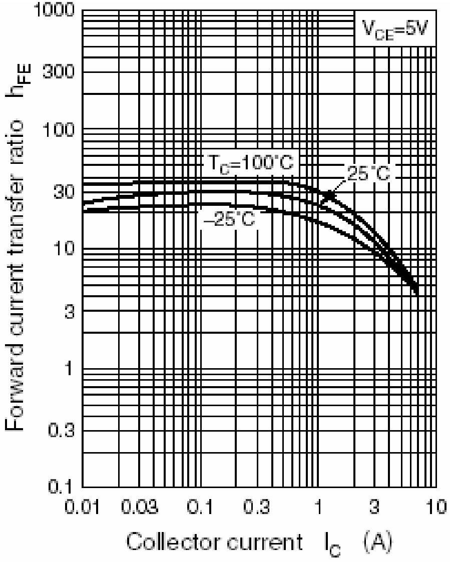

Fig.4 DC current Gain

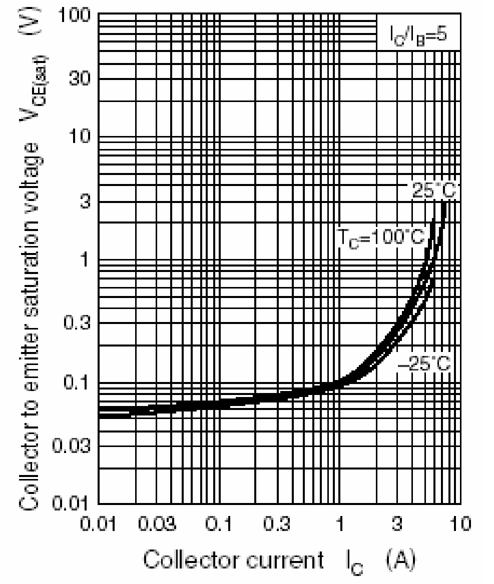

Fig.5 Collector-Emitter Saturation Voltage

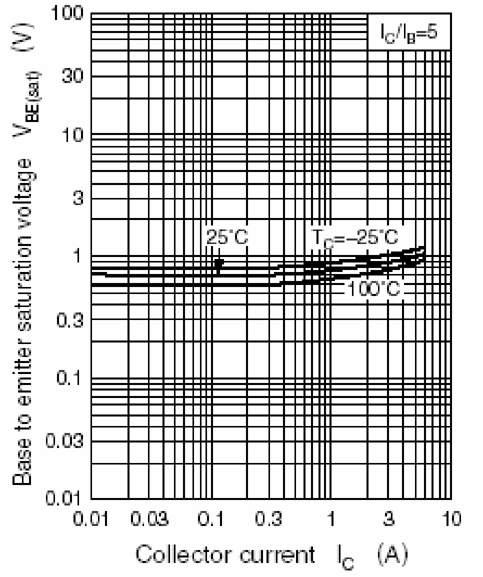

Fig.6 Base-Emitter Saturation Voltage

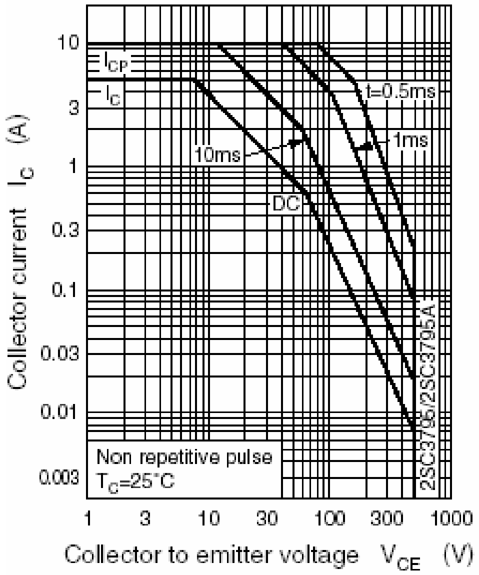

Fig.7 Safe Operating Area