

Silicon NPN Power Transistors

2SD1772 2SD1772A

DESCRIPTION

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- With TO-220Fa package
- Complement to type 2SB1192/1192A
- Large collector power dissipation

APPLICATIONS

- For power amplification
- For TV vertical deflection output

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

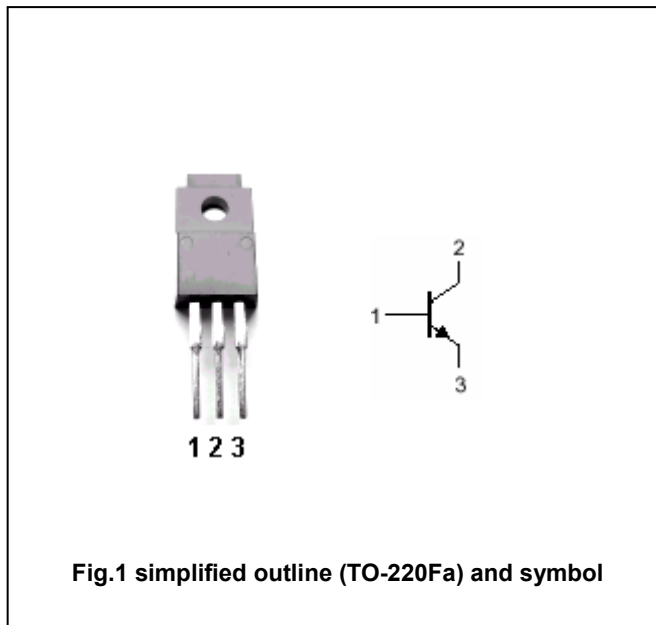


Fig.1 simplified outline (TO-220Fa) and symbol

ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	200	V
V _{CEO}	Collector-emitter voltage	2SD1772	150	V
		2SD1772A	180	
V _{EBO}	Emitter-base voltage	Open collector	6	V
I _C	Collector current (DC)		1	A
I _{CM}	Collector current-peak		2	A
P _C	Collector power dissipation	T _C =25°C	25	W
		T _a =25°C	2	
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

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{(BR)CEO}	Collector-emitter breakdown voltage	2SD1772	I _C =5mA, I _B =0	150			V
		2SD1772A		180			
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =0.5mA, I _C =0	6			V	
V _{CEsat}	Collector-emitter saturation voltage	I _C =500mA; I _B =50mA			1.0	V	
V _{BE}	Base-emitter on voltage	I _C =300mA; V _{CE} =10V			1.0	V	
I _{CBO}	Collector cut-off current	V _{CB} =200V; I _E =0			50	μA	
I _{EBO}	Emitter cut-off current	V _{EB} =4V; I _C =0			50	μA	
h _{FE-1}	DC current gain	I _C =100mA; V _{CE} =10V	60		240		
h _{FE-2}	DC current gain	I _C =300mA; V _{CE} =10V	50				
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V; f=1MHz		27		pF	
f _T	Transition frequency	I _C =100mA; V _{CE} =10V; f=1MHz		20		MHz	

◆ h_{FE-1} Classifications

Q	P
60-140	100-240

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PACKAGE OUTLINE

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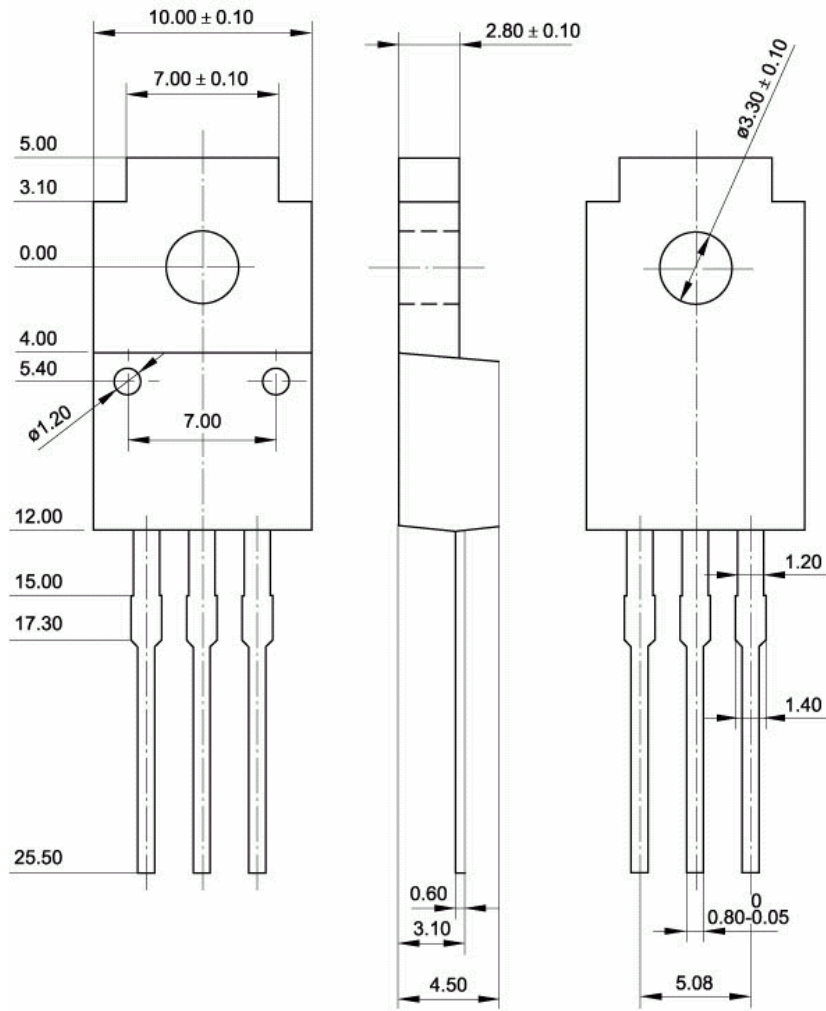


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)

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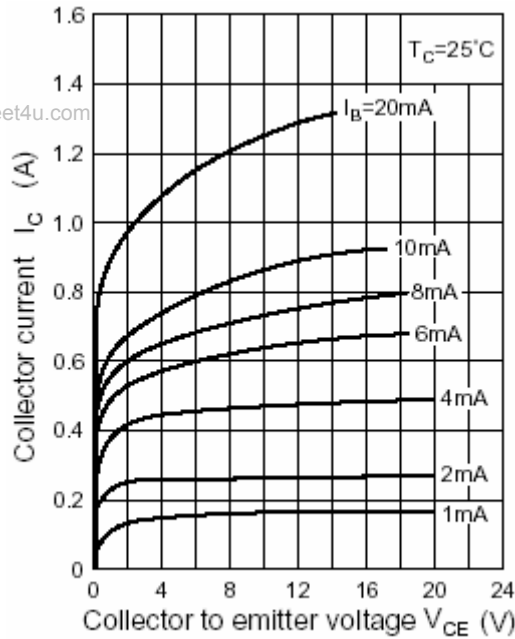


Fig.3 Static Characteristic

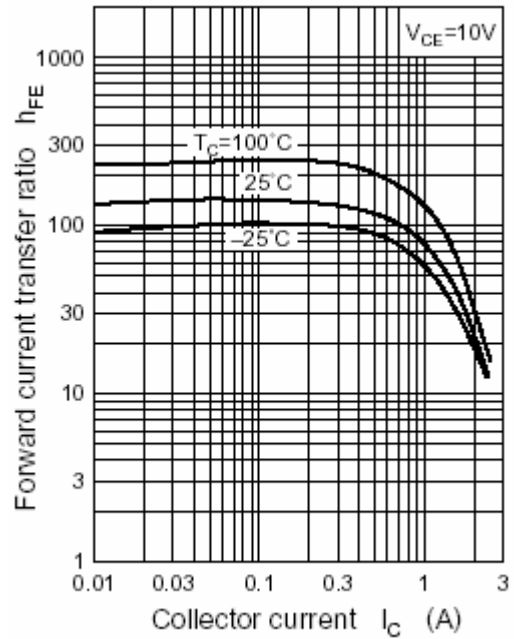


Fig.4 DC current Gain

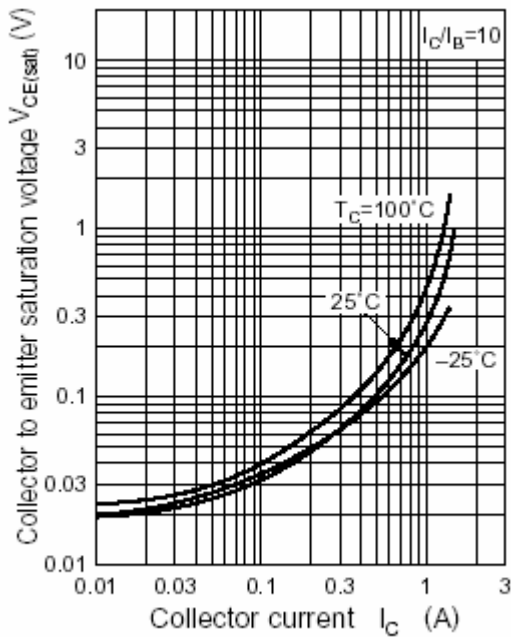


Fig.5 Collector-Emitter Saturation Voltage

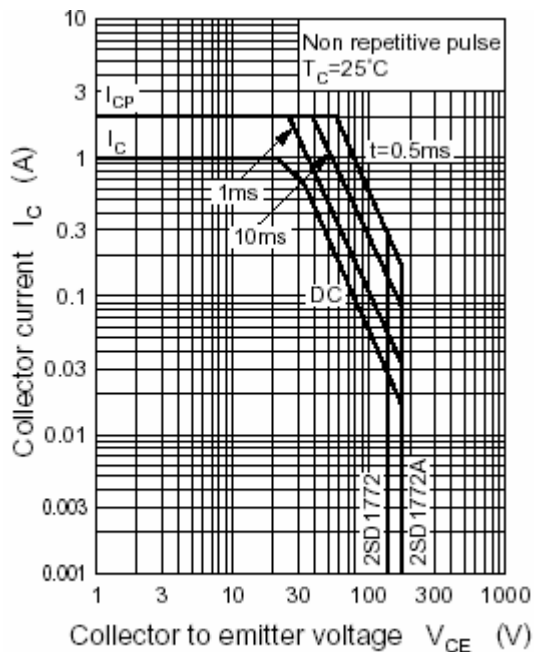


Fig.6 Safe Operating Area