

Silicon NPN Power Transistors

2SC1683

DESCRIPTION

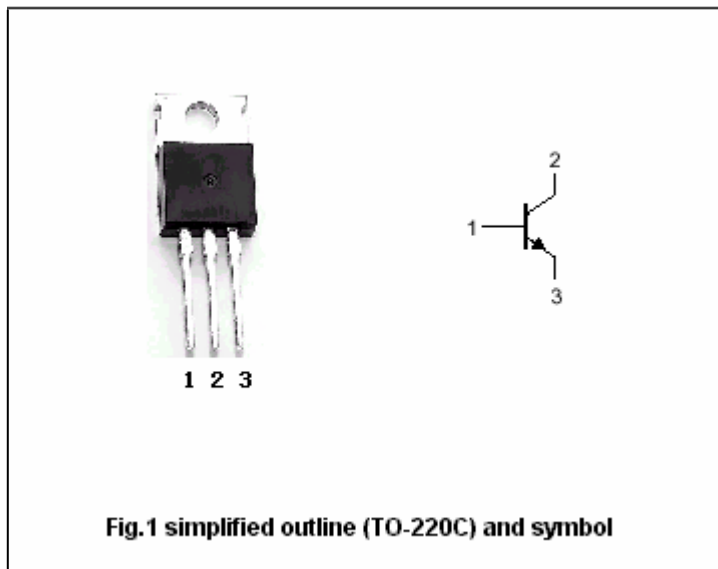
- With TO-220C package
- Complement to type 2SA843
- High breakdown voltage
- Large collector power dissipation

APPLICATIONS

- Audio frequency power amplifier
- Color TV vertical deflection output

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	200	V
V_{CEO}	Collector-emitter voltage	Open base	150	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		500	mA
I_{CM}	Collector current-peak		2	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	20	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-50~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =5mA ; I _B =0	150			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =0.5mA ; I _E =0	200			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =0.5mA ; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =500mA ; I _B =50mA			1.0	V
V _{BE}	Base-emitter on voltage	I _C =400mA ; 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}	DC current gain	I _C =400mA ; V _{CE} =10V	60		200	

◆ h_{FE} Classifications

P	Q
60-140	85-200

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PACKAGE OUTLINE



Fig.2 Outline dimensions (unindicated tolerance: ±0.10 mm)