

Silicon NPN Power Transistors

2SC1881

DESCRIPTION

- With TO-220C package
- DARLINGTON
- High DC current gain

APPLICATIONS

- High gain amplifier power switching

PINNING

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

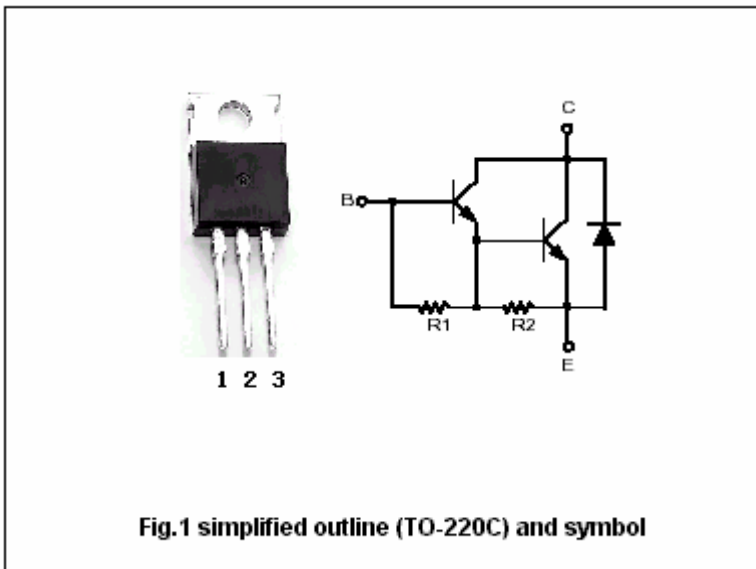


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Tc=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	60	V
V _{CEO}	Collector-emitter voltage	Open base	60	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current-DC		3	A
I _{CM}	Collector current-Pulse		6	A
P _C	Collector power dissipation	T _c =25°C	30	W
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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-emitter sustaining voltage	I _C =50mA, R _{BE} =∞	60			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =50mA, I _C =0	7			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2.5A, I _B =20mA			1.2	V
I _{CBO}	Collector cut-off current	V _{CB} =60V, I _E =0			0.2	mA
I _{CEO}	Collector cut-off current	V _{CE} =30V, R _{BE} =∞			0.4	mA
h _{FE-1}	DC current gain	I _C =1.5A ; V _{CE} =1.5V	1000			
h _{FE-2}	DC current gain	I _C =2.5A ; V _{CE} =1.5V	500			
t _{on}	Turn-on time	V _{CC} =11V, I _C =2A I _{B1} =-I _{B2} =8mA		1		μs
t _{off}	Turn-off time			5		μs

