

**Silicon NPN Power Transistors**

**2SC1905**

**DESCRIPTION**

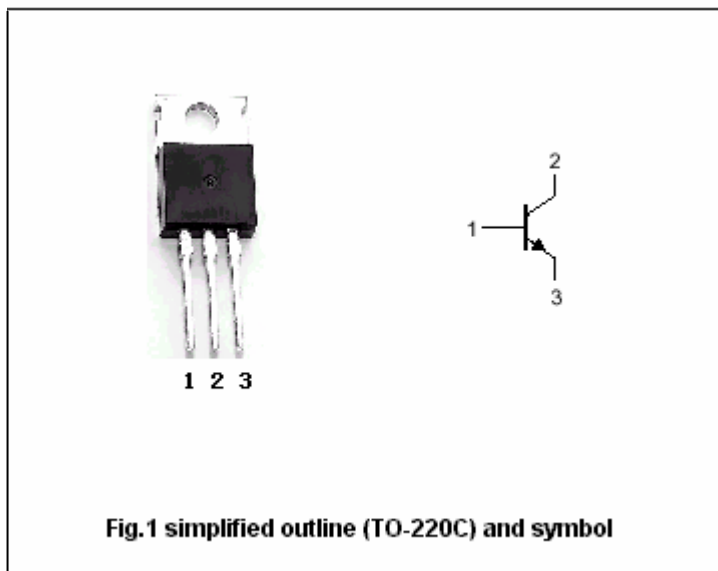
- With TO-220C package
- High breakdown voltage
- Large collector power dissipation

**APPLICATIONS**

- Color TV horizontal deflection driver

**PINNING**

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



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

**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	350	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	300	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7.5	V
I <sub>C</sub>	Collector current		200	mA
I <sub>CM</sub>	Collector current-peak		400	mA
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	15	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

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## CHARACTERISTICS

T<sub>j</sub>=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =5mA ; I <sub>B</sub> =0	300			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =100μA ; I <sub>E</sub> =0	350			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =100μA ; I <sub>C</sub> =0	7.5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =50mA; I <sub>B</sub> =5mA			1.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =200V ; I <sub>E</sub> =0			2	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			2	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =10m A ; V <sub>CE</sub> =10V	40		250	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =10m A ; V <sub>CE</sub> =30V	50			MHz
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> =50V; f=1MHz			4.5	pF
t <sub>stg</sub>	Storage time	I <sub>C</sub> =100mA; I <sub>B1</sub> =10mA; I <sub>B2</sub> =0	5		7.5	μs

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PACKAGE OUTLINE



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