

Silicon NPN Power Transistors

2SC1819M

DESCRIPTION

- With TO-220 package
- High  $V_{CEO}$
- Large  $P_C$

APPLICATIONS

- For use in line-operated color TV chroma output circuits.

PINNING

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

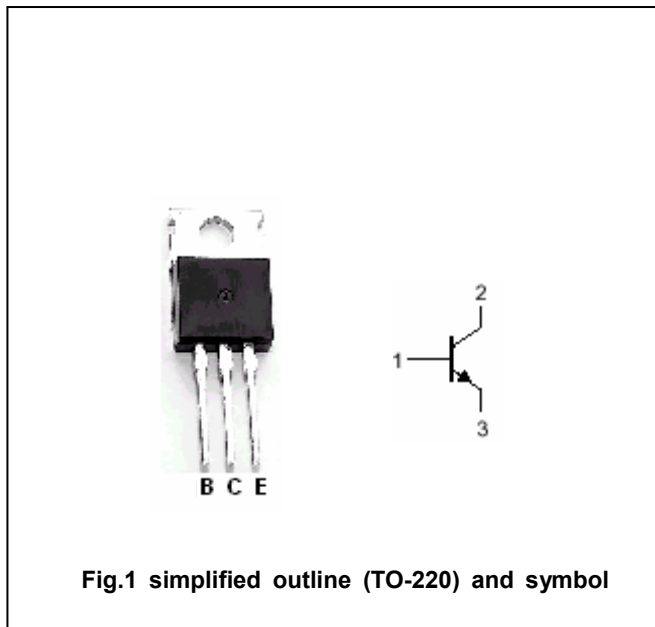


Fig.1 simplified outline (TO-220) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	300	V
$V_{CEO}$	Collector-emitter voltage	Open base	300	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current		0.1	A
$I_{CM}$	Collector current-peak		0.2	A
$P_C$	Collector power dissipation	$T_C=25^\circ\text{C}$	15	W
$T_j$	Junction temperature		150	$^\circ\text{C}$
$T_{stg}$	Storage temperature		-55~150	$^\circ\text{C}$

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =100μA ; I <sub>E</sub> =0	300			V
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =100A ; I <sub>B</sub> =0	300			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =100μA ; I <sub>C</sub> =0	7			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =50mA ; I <sub>B</sub> =5mA			1.5	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =30mA ; V <sub>CE</sub> =10V			1.2	V
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =5mA ; V <sub>CE</sub> =50V	50		250	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =30mA ; V <sub>CE</sub> =10V	30			
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =30V; f=1MHz			5	pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =20mA ; V <sub>CE</sub> =30V	70			MHz

