



**PRODUCT NAME** : BF869 NPN General Purpose Transistor

**PRICE** : Rs 30.00

**SKU** : RM1790

## DESCRIPTION

## Features

- Collector-Emitter Volt ( $V_{ce0}$ ): 250V
- Collector-Base Volt ( $V_{cb0}$ ): 250V
- Collector Current ( $I_c$ ): 0.05A
- $h_{fe}$ : 50 @ 25mA
- Power Dissipation ( $P_{tot}$ ): 1.6W
- Current-Gain-Bandwidth ( $f_{total}$ ): 60MHz
- Type: NPN



**NPN high-voltage transistors**

**BF869; BF871**

**FEATURES**

- Low feedback capacitance.

**APPLICATIONS**

- For use in class-B video output stages in colour television receivers.

**DESCRIPTION**

NPN transistors in a TO-202 plastic package.  
 PNP complement: BF872.

**PINNING**

PIN	DESCRIPTION
1	emitter
2	collector, connected to mounting base
3	base

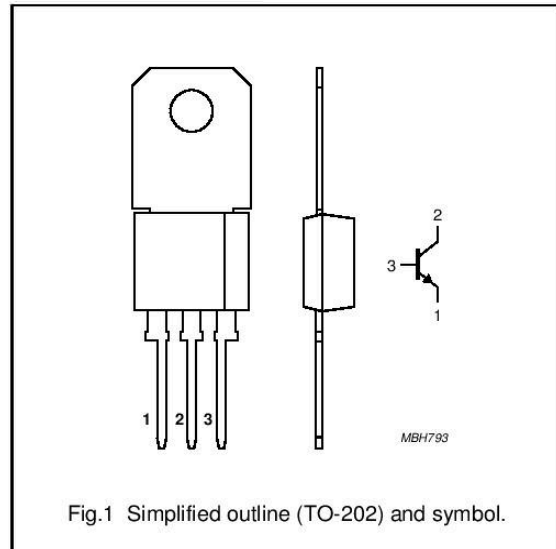


Fig.1 Simplified outline (TO-202) and symbol.

**LIMITING VALUES**

In accordance with the Absolute Maximum Rating System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V <sub>CBO</sub>	collector-base voltage BF869	open emitter	–	250	V
			–	300	V
V <sub>CEO</sub>	collector-emitter voltage BF869	open base	–	250	V
			–	300	V
V <sub>EBO</sub>	emitter-base voltage	open collector	–	5	V
I <sub>C</sub>	collector current (DC)		–	50	mA
I <sub>CM</sub>	peak collector current	peak value	–	100	mA
I <sub>BM</sub>	peak base current		–	50	mA
P <sub>tot</sub>	total power dissipation	T <sub>amb</sub> ≤ 25 °C	–	1.6	W
		T <sub>mb</sub> ≤ 25 °C	–	5	W
T <sub>stg</sub>	storage temperature		–65	+150	°C
T <sub>j</sub>	junction temperature		–	150	°C
T <sub>amb</sub>	operating ambient temperature		–65	+150	°C

NPN high-voltage transistors

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**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	78	K/W
$R_{th\ j-mb}$	thermal resistance from junction to mounting base	25	K/W

**CHARACTERISTICS**

$T_j = 25\text{ °C}$  unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$I_{CBO}$	collector cut-off current	$I_E = 0; V_{CB} = 200\text{ V}$	–	10	nA
		$I_E = 0; V_{CB} = 200\text{ V}; T_j = 150\text{ °C}$	–	10	$\mu\text{A}$
$I_{EBO}$	emitter cut-off current	$I_C = 0; V_{EB} = 5\text{ V}$	–	50	nA
$h_{FE}$	DC current gain	$I_C = 25\text{ mA}; V_{CE} = 20\text{ V}$	50	–	
$V_{CEsat}$	collector-emitter saturation voltage	$I_C = 30\text{ mA}; I_B = 5\text{ mA}$	–	600	mV
$C_{re}$	feedback capacitance	$I_C = I_c = 0; V_{CE} = 30\text{ V}; f = 1\text{ MHz}$	–	2	pF
$f_T$	transition frequency	$I_C = 10\text{ mA}; V_{CE} = 10\text{ V}; f = 100\text{ MHz}$	60	–	MHz

