



PRODUCT NAME : BF459 NPN High Voltage Transistor

PRICE : Rs 49.00

SKU : RM1784



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DESCRIPTION

Features

- Collector-Emitter Volt (V_{ce0}): 300V
- Collector-Base Volt (V_{cbo}): 300V
- Collector Current (I_c): 0.1A
- h_{fe} : 26 @ 30mA
- Power Dissipation (P_{tot}): 6W
- Current-Gain-Bandwidth (f_{total}): 90MHz
- Type: NPN

NPN high-voltage transistors

BF458; BF459

FEATURES

- Low current (max. 100 mA)
- High voltage (max. 300 V).

APPLICATIONS

- Intended for video output stages in black-and-white and in colour television receivers.

DESCRIPTION

NPN transistors in a TO-126; SOT32 plastic package.

PINNING

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

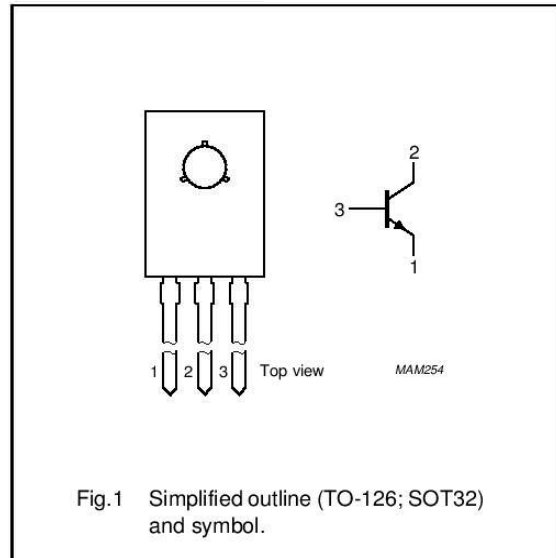


Fig.1 Simplified outline (TO-126; SOT32) and symbol.

LIMITING VALUES

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V _{CBO}	collector-base voltage	open emitter			
	BF458		–	250	V
	BF459		–	300	V
V _{CEO}	collector-emitter voltage	open base			
	BF458		–	250	V
	BF459		–	300	V
V _{EBO}	emitter-base voltage	open collector	–	5	V
I _C	collector current (DC)		–	100	mA
I _{CM}	peak collector current		–	300	mA
I _{BM}	peak base current		–	100	mA
P _{tot}	total power dissipation	T _{mb} ≤ 90 °C	–	6	W
T _{stg}	storage temperature		–65	+150	°C
T _j	junction temperature		–	150	°C
T _{amb}	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	104	K/W
$R_{th\ j-mb}$	thermal resistance from junction to mounting base	10	K/W

CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
I_{CBO}	collector cut-off current BF458	$I_E = 0; V_{CB} = 200\text{ V}$	–	–	50	nA
		$I_E = 0; V_{CB} = 200\text{ V}; T_j = 150\text{ °C}$	–	–	5	μA
I_{CBO}	collector cut-off current BF459	$I_E = 0; V_{CB} = 250\text{ V}$	–	–	50	nA
		$I_E = 0; V_{CB} = 250\text{ V}; T_j = 150\text{ °C}$	–	–	5	μA
I_{EBO}	emitter cut-off current	$I_C = 0; V_{EB} = 5\text{ V}$	–	–	100	nA
h_{FE}	DC current gain	$I_C = 30\text{ mA}; V_{CE} = 10\text{ V}$	26	–	–	
V_{CEsat}	collector-emitter saturation voltage	$I_C = 30\text{ mA}; I_B = 6\text{ mA}$	–	–	1	V
C_c	collector capacitance	$I_E = i_e = 0; V_{CB} = 30\text{ V}; f = 1\text{ MHz}$	–	–	4.5	pF
C_{re}	feedback capacitance	$I_C = i_c = 0; V_{CE} = 30\text{ V}; f = 1\text{ MHz}$	–	–	3.5	pF
f_T	transition frequency	$I_C = 15\text{ mA}; V_{CE} = 10\text{ V}; f = 100\text{ MHz}$	–	90	–	MHz

