

PNP high-voltage transistors

BF621; BF623

FEATURES

- Low current (max. 50 mA)
- High voltage (max. 300 V).

APPLICATIONS

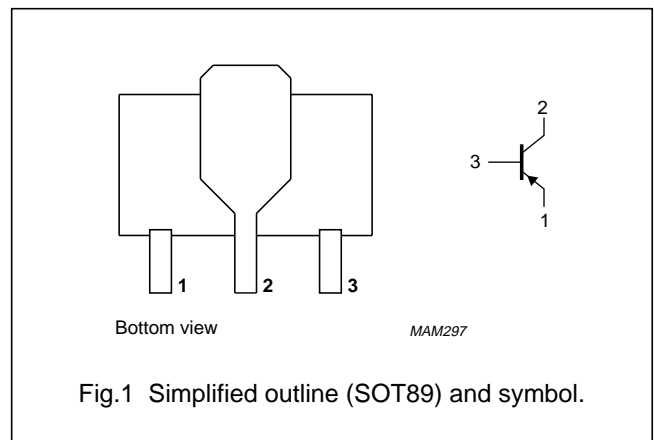
- Video output stages.

DESCRIPTION

PNP high-voltage transistor in a SOT89 plastic package.
NPN complements: BF620 and BF622.

PINNING

PIN	DESCRIPTION
1	emitter
2	collector
3	base



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				
	BF621					-300
	BF623				-250	V
V _{CEO}	collector-emitter voltage	open base				
	BF621					-300
	BF623				-250	V
V _{EBO}	emitter-base voltage	open collector			-5	V
I _C	collector current (DC)				-50	mA
I _{CM}	peak collector current				-100	mA
I _{BM}	peak base current				-50	mA
P _{tot}	total power dissipation	T _{amb} ≤ 25 °C; note 1			1.25	W
T _{stg}	storage temperature		-65	+150		°C
T _j	junction temperature			150		°C
T _{amb}	operating ambient temperature		-65	+150		°C

Note

1. Device mounted on a printed-circuit board, single-sided copper, tinned, mounting pad for collector 6 cm².
For other mounting conditions, see "Thermal considerations for SOT89 in the General Part of associated Handbook".

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	note 1	100	K/W
$R_{th\ j-s}$	thermal resistance from junction to soldering point		20	K/W

Note

- Device mounted on a printed-circuit board, single-sided copper, tinplated, mounting pad for collector 6 cm².
For other mounting conditions, see "Thermal considerations for SOT89 in the General Part of associated Handbook".

CHARACTERISTICS
 $T_j = 25\text{ }^\circ\text{C}$ 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
		$I_E = 0; V_{CB} = -200\text{ V}; T_j = 150\text{ }^\circ\text{C}$		-10	μA
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	$I_C = -30\text{ mA}; I_B = -5\text{ mA}$		-800	mV
C_{re}	feedback capacitance	$I_C = i_c = 0; V_{CE} = -30\text{ V}; f = 1\text{ MHz}$		1.6	pF
f_T	transition frequency	$I_C = -10\text{ mA}; V_{CE} = -10\text{ V}; f = 100\text{ MHz}$	60		MHz