



MICRO ELECTRONICS

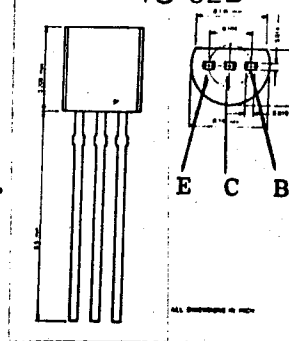
GENERAL DESCRIPTION :

The BF422 is a NPN silicon planar epitaxial transistor. It features high voltage and is intended for high voltage class A output stage of audio frequency amplifiers, video amplifiers in colour television receivers including grid drive and in driver stages of high voltage line deflection circuits.

It is complementary to BF423.

MECHANICAL OUTLINE

TO-92B



THERMAL CHARACTERISTICS :

Thermal Resistance from Junction to Ambient, $\theta(j-amb)$
(mounted on a copper plate of length 3mm max and area 1cm²)
Maximum Collector Junction Temperature, T_j
Storage Temperature Range, T_{stg}

0.15°C/mW
150°C
-65°C to +150°C

ABSOLUTE MAXIMUM RATINGS :

Continuous Power Dissipation @ T_A ≤ 25°C, P max
(mounted on a copper plate of length 3mm max and area 1cm²)
Continuous Collector Current, I_C max
Peak Collector Current, I_{CM} max
Collector-Base Voltage, V_{CB0}
Collector-Emitter Voltage, V_{CEO}
Emitter-Base Voltage, V_{EBO}

830mW
20mA
100mA
250V
250V
5V

ELECTRICAL CHARACTERISTICS @ T_A=25°C (unless otherwise stated) :

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BV _{CB0}	250			V	I _C =10uA I _E =0
Collector-Emitter Breakdown Voltage	LV _{CEO}	250			V	I _C =1mA I _B =0
Emitter-Base Breakdown Voltage	BV _{EBO}	5			V	I _E =10uA I _C =0
Collector Cutoff Current	I _{CB0}			10	nA	V _{CB} =200V I _E =0
Collector Cutoff Current	I _{CER}			10	uA	V _{CB} =200V R _{BE} =10Kohm T _j = 150°C
Emitter Cutoff Current	I _{EBO}			10	uA	V _{EB} =5V I _C =0
D.C. Current Gain	h _{FE}	50				V _{CE} =20V I _C =25mA
Transition Frequency	f _T	60			MHz	V _{CB} =10V I _E =10mA
High Frequency Knee Voltage	V _{CEK(HF)*}		20		V	I _C =25mA T _j =150°C
Feedback Capacitance	C _{ob}		2		pF	V _{CB} =30V I _E =0 f=1MHz
Feedback Time Constant	C _c 'r _{bb} '		100		ps	V _{CB} =20V I _E =-30mA f=10.7MHz

The value of Collector-Emitter Voltage at which the small signal gain measured in a practical circuit, has dropped to 80% of the gain at V_{CE}=50V.

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