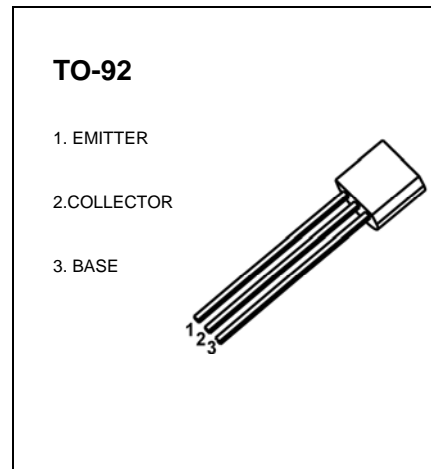


TO-92 Plastic-Encapsulate Transistors

BF420 TRANSISTOR (NPN) BF422

FEATURES

- Low feedback capacitance.
- NPN transistors in a TO-92 plastic package.
PNP complements: BF421 and BF423
- Class-B video output stages in colour television and professional monitor equipment.



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	BF420	BF422	Unit
V _{CBO}	Collector-Base Voltage	300	250	V
V _{CEO}	Collector-Emitter Voltage	300	250	V
V _{EBO}	Emitter-Base Voltage	5		V
I _C	Collector Current -Continuous	100		mA
P _C	Collector Power Dissipation	0.830		W
R _{th j-a}	thermal resistance from junction to ambient	151		°C/W
T _j	junction temperature	150		°C
T _{stg}	Storage Temperature Range	-55~150		°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	BF420 BF422 V _{(BR)CBO}	I _C =100μA, I _E =0	300 250		V
Collector-emitter breakdown voltage	BF420 BF422 V _{(BR)CEO}	I _C = 1mA, I _B =0	300 250		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	5		V
Collector cut-off current	I _{CBO}	V _{CB} =200V, I _E =0		0.01	μ A
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0		0.05	μ A
DC current gain	h _{FE}	V _{CE} =20V, I _C =25mA	50		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =30mA, I _B = 5mA		0.6	V
Transition frequency	f _T	V _{CE} =10V, I _C = 10mA f=100MHz	60		MHz
Feedback capacitance	C _{re}	V _{CE} =30V, I _C =0, f=1MHz		1.6	pF

TO-92 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

NOTICE

JCET reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JCET does not assume any liability arising out of the application or use of any product described herein.

TO-92 PACKAGE TAPING DIMENSION



Dimiensions are in millimeter								
A1	A	T	P	P0	P2	F1	F2	W
4.5	4.5	3.5	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0 MAX.	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	2000 pcs	333×162×43	20,000 pcs	350×340×250