

TO-92 Plastic-Encapsulate Transistors

BF421
BF423

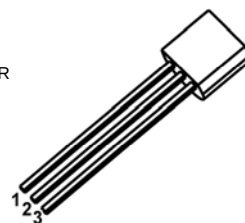
TRANSISTOR (PNP)

FEATURES

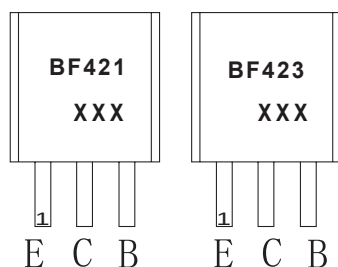
- Low Feedback Capacitance.
- PNP Transistors in a TO-92 Plastic Package.
NPN Complements: BF420 and BF422
- Class-B Video Output Stages in Colour Television and Professional Monitor Equipment.

TO-92

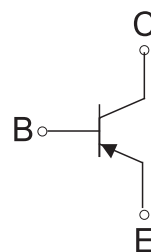
1. EMITTER
2. COLLECTOR
3. BASE



MARKING



Equivalent Circuit



BF421,BF423=Device code

XXX=Code

GXX=Green molding compound device

CXX=Normal molding compound device

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
BF421	TO-92	Bulk	1000pcs/Bag
BF421-TA	TO-92	Tape	2000pcs/Box
BF423	TO-92	Bulk	1000pcs/Bag
BF423-TA	TO-92	Tape	2000pcs/Box

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

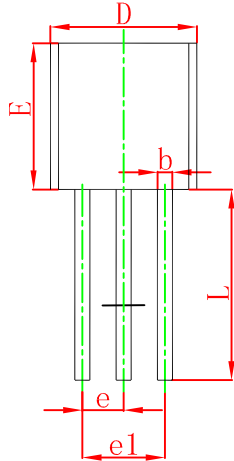
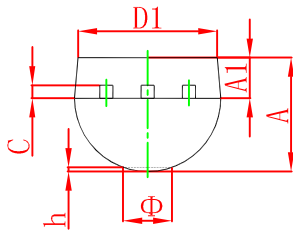
Symbol	Parameter	BF421	BF423	Unit
V _{CBO}	Collector-Base Voltage	-300	-250	V
V _{CEO}	Collector-Emitter Voltage	-300	-250	V
V _{EBO}	Emitter-Base Voltage	-5		V
I _C	Collector Current -Continuous	-100		mA
P _C	Collector Power Dissipation	0.83		W
R _{thja}	Thermal resistance from junction to ambient	151		°C /W
T _J ,T _{stg}	Operation Junction and Storage Temperature Range	- 55 ~ +150		°C

ELECTRICAL CHARACTERISTICS

$T_a=25\text{ }^{\circ}\text{C}$ unless otherwise specified

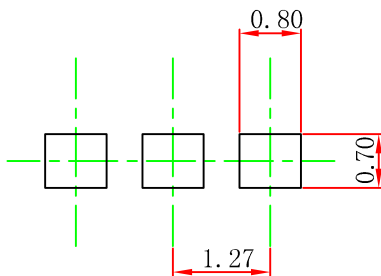
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage BF421 BF423	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-300 -250		V
Collector-emitter breakdown voltage BF421 BF423	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-300 -250		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB}=-200V, I_E=0$		-0.01	μA
Emitter cut-off current BF421 BF423	I_{EBO}	$V_{EB}=-5V, I_C=0$		-0.1 -0.05	μA
DC current gain	h_{FE}	$V_{CE}=-20V, I_C=-25mA$	50		
Collector-emitter saturation voltage BF421 BF423	$V_{CE(sat)}$	$I_C=-20mA, I_B=-2mA$ $I_C=-30mA, I_B=-5mA$		-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



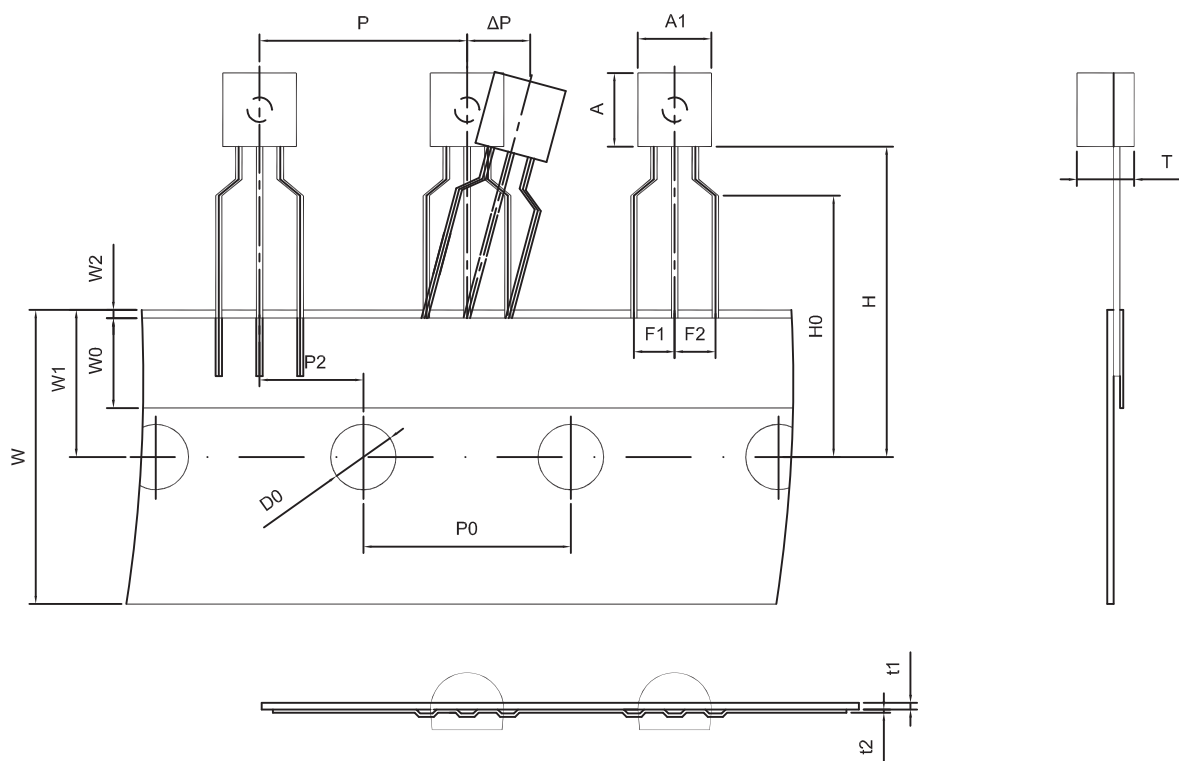
Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

NOTICE

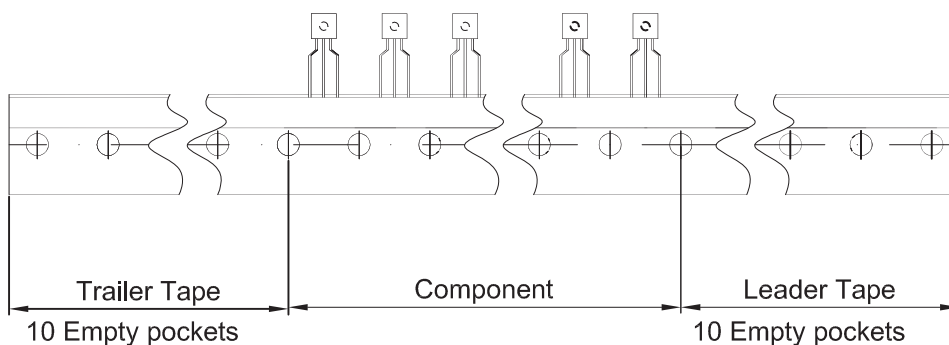
JSCJ reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSCJ does not assume any liability arising out of the application or use of any product described herein.

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