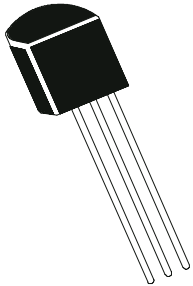


**NPN SILICON PLANAR EPITAXIAL TRANSISTOR**

**BF422  
(BPL)  
TO-92  
BCE**



**Designed for High Voltage Video Amplifier in Television Receivers.**

**ABSOLUTE MAXIMUM RATINGS(Ta=25 deg C )**

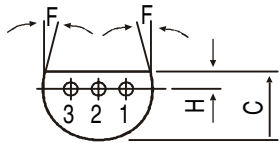
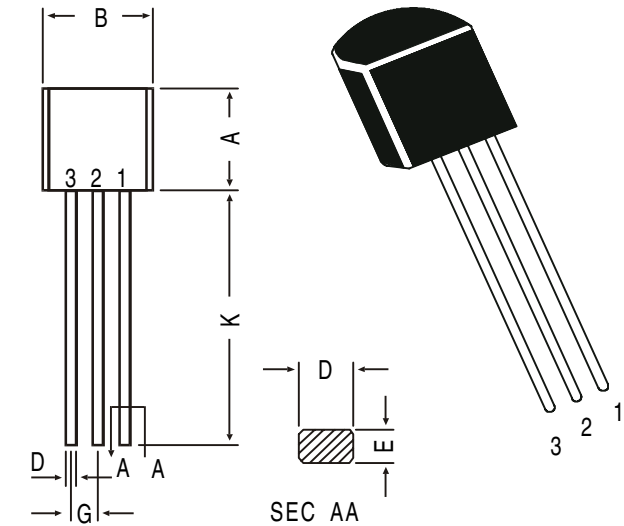
DESCRIPTION	SYMBOL	VALUE	UNITS
Collector -Base Voltage	VCBO	250	V
Collector -Emitter Voltage	VCEO	250	V
Emitter -Base Voltage	VEBO	5.0	V
Collector Current Continuous	IC	500	mA
Power Dissipation@ Ta=25 deg C	PD	900	mW
Derate Above 25 deg C		7.2	mW/deg C
Power Dissipation@ Tc=25 deg C	PD	2.75	W
Derate Above 25 deg C		22	mW/deg C
Operating & Storage Junction Temperature Range	Tj, Tstg	-55 to +150	deg C
<b>THERMAL RESISTANCE</b>			
From Junction to Case	Rth(j-c)	45	deg C/W
From Junction to Ambient	Rth(j-a)	156	deg C/W

**ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)**

DESCRIPTION	SYMBOL	TEST CONDITION	VALUE		UNITS
			min	max	
Collector -Emitter Voltage	VCEO	IC=1.0mA, IB=0	250	-	V
Collector -Base Voltage	VCBO	IC=100uA, IE=0	250	-	V
Emitter-Base Voltage	VEBO	IE=100uA, IC=0	5.0	-	V
Collector-Cut off Current	ICBO	VCB=200V, IE=0	-	10	nA
Emitter-Cut off Current	IEBO	VEB=5.0V, IC=0		100	nA
Base Emitter (Sat) Voltage	VBE(Sat)*	IC=20mA, IB=2mA	-	2	V
Collector Emitter (Sat) Voltage	VCE(Sat) *	IC=20mA, IB=2mA	-	0.5	V
DC Current Gain	hFE*	IC=25mA, VCE=20V	60	120	
<b>DYNAMIC CHARACTERISTICS</b>					
Transistors Frequency	ft	IC=10mA, VCE=10V f=50MHz	60	-	MHz
Feedback Capacitance	Cre	VCB=30V, f=1MHz	-	1.6	pF

\*Pulse Test : Pulse Width =300us, Duty Cycle=2%

# TO-92 Plastic Package

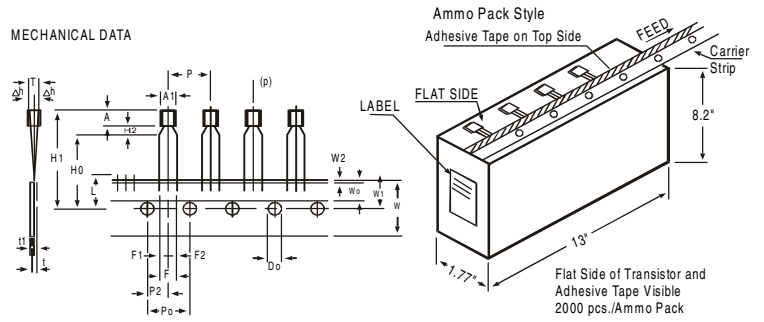


**PIN CONFIGURATION**  
 1. BASE  
 2. COLLECTOR  
 3. EMITTER

All dimensions in mm.

DIM	MIN.	MAX.
A	4.32	5.33
B	4.45	5.20
C	3.18	4.19
D	0.41	0.55
E	0.35	0.50
F	5 DEG	
G	1.14	1.40
H	1.14	1.53
K	12.70	—

## TO-92 Transistors on Tape and Ammo Pack



All dimensions in mm unless specified otherwise

ITEM	SYMBOL	SPECIFICATION				REMARKS
		MIN.	NOM.	MAX.	TOL.	
BODY WIDTH	A1	4.0	4.8			
BODY HEIGHT	A	4.8	5.2			
BODY THICKNESS	T	3.9	4.2			
PITCH OF COMPONENT	P		12.7		±1	
FEED HOLE PITCH	P0		12.7		±0.3	CUMULATIVE PITCH ERROR 1.0 mm/20 PITCH
FEED HOLE CENTRE TO COMPONENT CENTRE	P2		6.35		±0.4	TO BE MEASURED AT BOTTOM OF CLINCH
DISTANCE BETWEEN OUTER LEADS	F		5.08		+0.6 -0.2	
COMPONENT ALIGNMENT	Δh		0	1		AT TOP OF BODY
TAPE WIDTH	W		18		±0.5	
HOLD-DOWN TAPE WIDTH	W0		6		±0.2	
HOLE POSITION	W1		9		+0.7 -0.5	
HOLD-DOWN TAPE POSITION	W2		0.5		±0.2	
LEAD WIRE CLINCH HEIGHT	H0		16		±0.5	
COMPONENT HEIGHT	H1		23.25			
LENGTH OF SNIPPED LEADS	L		11.0			
FEED HOLE DIAMETER	Do		4		±0.2	
TOTAL TAPE THICKNESS	t		1.2			t1 0.3 - 0.6
LEAD - TO - LEAD DISTANCE F1,	F2		2.54		+0.4 -0.1	
CLINCH HEIGHT	H2		3			
PULL - OUT FORCE	(P)		6N			

### NOTES

1. MAXIMUM ALIGNMENT DEVIATION BETWEEN LEADS NOT TO BE GREATER THAN 0.2 mm.
2. MAXIMUM NON-CUMULATIVE VARIATION BETWEEN TAPE FEED HOLES SHALL NOT EXCEED 1 mm IN 20 PITCHES.
3. HOLDDOWN TAPE NOT TO EXCEED BEYOND THE EDGE(S) OF CARRIER TAPE AND THERE SHALL BE NO EXPOSURE OF ADHESIVE.
4. NO MORE THAN 3 CONSECUTIVE MISSING COMPONENTS ARE PERMITTED.
5. A TAPE TRAILER, HAVING AT LEAST THREE FEED HOLES ARE REQUIRED AFTER THE LAST COMPONENT.
6. SPLICES SHALL NOT INTERFERE WITH THE SPROCKET FEED HOLES.

## Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-92 Bulk	1K/polybag	200 gm/1K pcs	3" x 7.5" x 7.5"	5.0K	17" x 15" x 13.5"	80.0K	23 kgs
TO-92 T&A	2K/ammo box	645 gm/2K pcs	12.5" x 8" x 1.8"	2.0K	17" x 15" x 13.5"	32.0K	12.5 kgs

## Notes

### Disclaimer

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