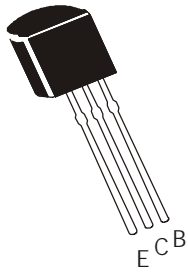


**PNP SILICON PLANAR EPITAXIAL TRANSISTORS**

**CSB621, CSB621A**



**TO-92  
Plastic Package**

**AF Output Amplifier**

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

DESCRIPTION	SYMBOL	CSB621	CSB621A	UNITS
Collector Emitter Voltage	V <sub>CEO</sub>	25	50	V
Collector Base Voltage	V <sub>CBO</sub>	30	60	V
Emitter Base Voltage	V <sub>EBO</sub>	5.0		V
Collector Current Peak	I <sub>CP</sub>	1.5		A
Collector Current	I <sub>C</sub>	1.0		A
Power Dissipation @ T <sub>a</sub> =25°C	*P <sub>C</sub>	750		mW
Junction Temperature	T <sub>j</sub>	150		°C
Storage Temperature Range	T <sub>stg</sub>	- 55 to +150		°C

\*P<sub>C</sub>=600mW/Potting type: P<sub>C</sub>=600mW

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless specified otherwise)**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector Cut off Current	I <sub>CBO</sub>	V <sub>CB</sub> =20V, I <sub>E</sub> = 0			0.1	μA
Collector Base Voltage	V <sub>CBO</sub>	I <sub>C</sub> =10μA, I <sub>E</sub> =0	CSB621	30		V
			CSB621A	60		V
Collector Emitter Voltage	V <sub>CEO</sub>	I <sub>C</sub> =2mA, I <sub>B</sub> =0	CSB621	25		V
			CSB621A	50		V
Emitter Base Voltage	V <sub>EBO</sub>	I <sub>E</sub> =10μA, I <sub>C</sub> =0	5			V
DC Current Gain	*h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =500mA	85		340	
	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =1A	50			
Collector Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA			0.4	V
Base Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA			1.2	V
Transition Frequency	f <sub>T</sub>	I <sub>C</sub> =50mA, V <sub>CE</sub> =10V		200		MHz
Output Capacitance	C <sub>ob</sub>	I <sub>E</sub> =0, V <sub>CB</sub> =10V, f=1MHz			30	pF

\*h<sub>FE</sub> Classifications

**Q : 85 - 170**

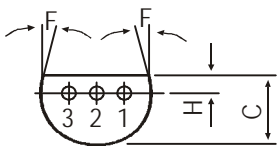
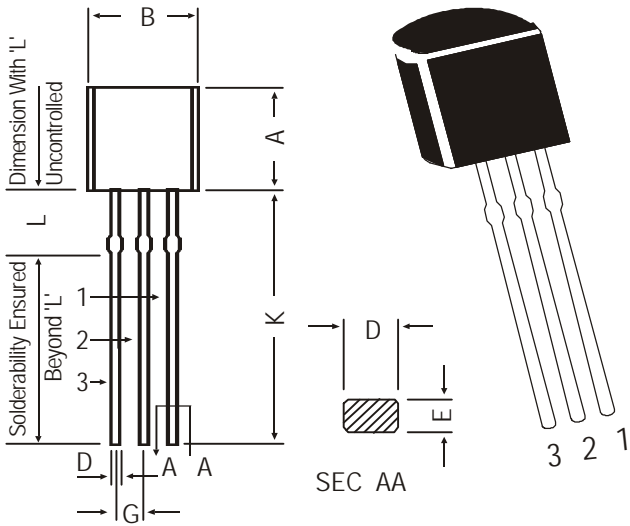
**R : 120 - 240**

**S : 170 - 340**

TO-92  
Plastic Package

TO-92 Plastic Package

TO-92 Transistors on Tape and Ammo Pack

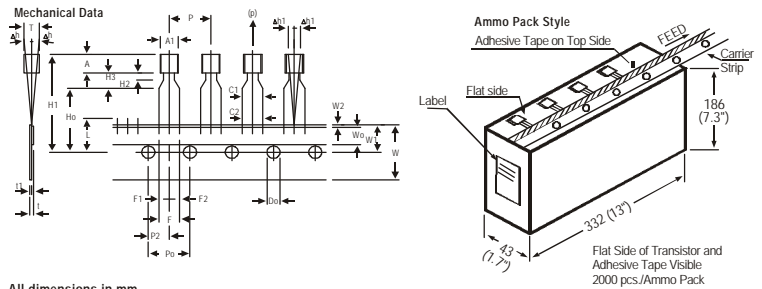


PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER

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	—
L	1.982	2.082

All dimensions in mm.



All dimensions in mm

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			± 1.0	
FEED HOLE PITCH	Po	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 SIDE VIEW	Δh	0	1.0			AT TOP OF BODY
COMPONENT ALIGNMENT FRONT VIEW	Δh1	0	1.3			AT TOP OF BODY
TAPE WIDTH	W	18			± 0.5	
HOLD-DOWN TAPE WIDTH	Wo	6			± 0.2	
HOLE POSITION	W1	9			+ 0.7 - 0.5	
HOLD-DOWN TAPE POSITION	W2	0.5			± 0.2	
LEAD WIRE CLINCH HEIGHT	Ho	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			11 0.3-0.6
LEAD - TO - LEAD DISTANCE	F1, F2	2.54			+ 0.4 - 0.1	
STAND OFF	H2	0.45		1.45		
CLINCH HEIGHT	H3			3.0		
LEAD PARALLELISM	C1 - C2			0.22		
PULL - OUT FORCE	(P)	6N				

NOTES

1. Maximum alignment deviation between leads will not be greater than 0.2mm.
2. Maximum non-cumulative variation between tape feed holes shall not exceed 1 mm in 20 pitches.
3. Holddown tape will not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive.
4. There will be no more than three (3) consecutive missing components in a tape.
5. A tape trailer, having at least three feed holes are provided after the last component in a tape.
6. Splices should 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"	5K	17" x 15" x 13.5"	80K	23 kgs
TO-92 T&A	2K/ammo box	645 gm/2K pcs	12.5" x 8" x 1.8"	2K	17" x 15" x 13.5"	32K	12.5 kgs

### **Disclaimer**

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