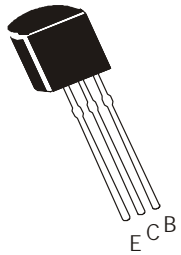


**PNP SILICON PLANAR EPITAXIAL TRANSISTORS**

**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	30			V
			60			V
Collector Emitter Voltage	V <sub>CEO</sub>	I <sub>C</sub> =2mA, I <sub>B</sub> =0	25			V
			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

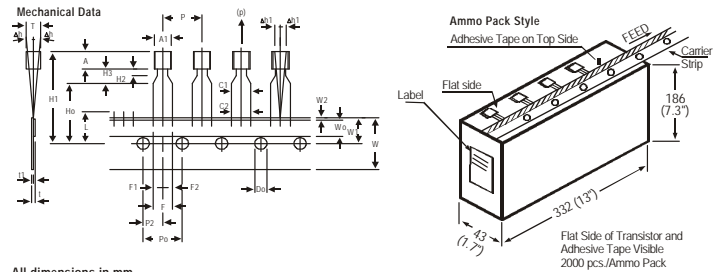
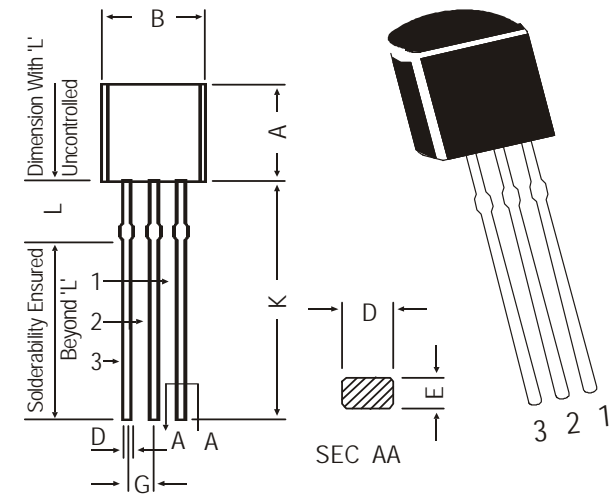
**Q : 85 - 170**

**R : 120 - 240**

**S : 170 - 340**

TO-92 Plastic Package

TO-92 Transistors on Tape and Ammo Pack



All dimensions in mm

ITEM	SYMBOL	SPECIFICATION				REMARKS
		MIN.	NOM.	MAX.	TOL.	
BODY WIDTH	A1	4.0	4.8			CUMULATIVE PITCH ERROR 1.0 mm/20 PITCH
BODY HEIGHT	A	4.8	5.2			
BODY THICKNESS	T	3.9	4.2			
PITCH OF COMPONENT	P		12.7		± 1.0	TO BE MEASURED AT BOTTOM OF CLINCH
FEED HOLE PITCH	Po		12.7		± 0.3	
FEED HOLE CENTRE TO COMPONENT CENTRE	P2		6.35		± 0.4	TO BE MEASURED AT TOP OF BODY
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		
TAPE WIDTH	W		18		± 0.5	11 0.3-0.6
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		
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	CT - C2			0.22		
PULL - OUT FORCE	(P)		6N			

- NOTES
- Maximum alignment deviation between leads will not be greater than 0.2mm.
  - Maximum non-cumulative variation between tape feed holes shall not exceed 1 mm in 20 pitches.
  - Holddown tape will not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive.
  - There will be no more than three (3) consecutive missing components in a tape.
  - A tape trailer, having at least three feed holes are provided after the last component in a tape.
  - Splices should not interfere with the sprocket feed holes.

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 diminsions in mm.

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

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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