



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

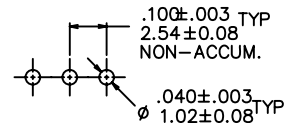
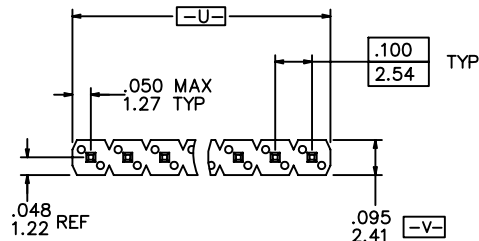
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



PRODUCT NUMBER

XXXXX-YYYHTLF

- LEAD FREE OPTION
SEE NOTE 1,11
- TUBE PACKAGING OPTION
SEE NOTE 1
- HIGH TEMPERATURE PLASTIC
SEE NOTE 1
- NO. OF POSITIONS
SEE NOTE 1
- PIN PLATING
SEE SHEET 2
- BASE PART NO.

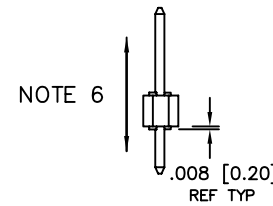
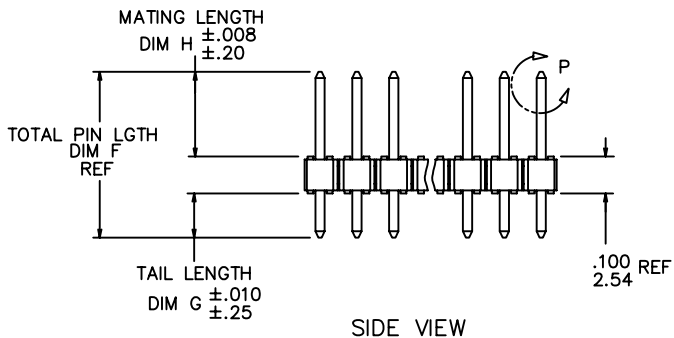


RECOMMENDED HOLE PATTERN

PRODUCT NUMBER

69190-XXXXXHALF

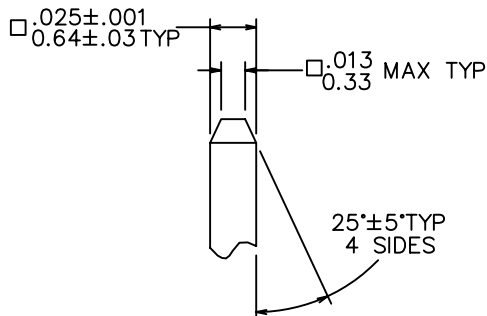
- LEAD FREE OPTION
SEE NOTE 1,11
- PACKAGING OPTION
SEE NOTE 1
- HIGH TEMPERATURE PLASTIC
SEE NOTE 1
- INDICATE DIFFERENT MATING LENGTH
AND TAIL LENGTH
- NO. OF POSITIONS
SEE NOTE 1
- PIN PLATING
SEE SHEET 2
- BASE PART NO.



NOTE 6

⊕ ∅ .020/.51 (M) U (M) V (S)

NOTE 4



DETAIL P
TYP BOTH ENDS

mat'l. code		surface		tolerance		projection		product family	
NOTES 2 & 3		ISO 1302 ✓		ISO 406 ISO 1101		INCH/MM		BERGSTIK	
ltr	ecn	nldr	date	tolerances unless otherwise specified		scale 1:1		title	
AM	ELX-N-13674	DCS	2012-12-12	angles	linear			BERGSTIK® II HEADER	
AN	ELX-N-16105	ZK	2013-10-22					.100/2.54 SR SELF-RET	
AP	ELX-N-19414	HJ	2014-11-13	0°±2'				dwg no	
				dr	D. WHITING	4/19/93		sheet 1 of 4	
				enr	T.HANNA	4/19/93		size	
				chr	T. BREWBAKER	4/19/93		A3	
				app	T.HANNA	4/19/93		type	
								Product Customer Drawing	
sheet	revision	AP							
index	sheet	1-4							



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PIN PLATING CODES:

XXXX-1YY	30u"/0.76u MIN (SEE NOTE 12) OVER 50u"/1.27u MIN Ni
XXXX-2YY	15u"/0.38u MIN (SEE NOTE 12) OVER 50u"/1.27u MIN Ni
XXXX-3YY	50u"/1.27u MIN (SEE NOTE 12) OVER 50u"/1.27u MIN Ni
XXXX-4YY	100u"/2.54u MIN Sn OVER 50u"/1.27u MIN Ni (SEE NOTE 13)
XXXX-4YYHLF	
XXXX-5YY	15u"/0.38u MIN (SEE NOTE 12) OVER 50u"/1.27u MIN Ni
XXXX-6YY	30u"/0.76u MIN (SEE NOTE 12) OVER 50u"/1.27u MIN Ni
XXXX-7YY	30u"/0.76u MIN (SEE NOTE 12) OVER 50u"/1.27u MIN Ni
XXXX-8YY	15u"/0.38u MIN (SEE NOTE 12) OVER 50u"/1.27u MIN Ni
XXXX-9YY	15u"/0.38u MIN (SEE NOTE 12) OVER 50u"/1.27u MIN Ni
XXXX-0YY	30u"/0.76u MIN (SEE NOTE 12) OVER 50u"/1.27u MIN Ni

NOTES

1. PART NUMBER OPTIONS:

PIN PLATING CODES (SEE ABOVE)

HIGH TEMP. MATERIAL:

FOR HIGH-TEMPERATURE APPLICATIONS, SPECIFY AN "H" AT THE END OF THE PART NUMBER, AND PCT WILL BE SUPPLIED.

NUMBER OF POSITION:

ANY NUMBER OF POSITIONS FROM 2 THRU 36.

PACKAGING:

PACKAGED IN POLY BAGS.

EIGHT DIGIT PART NUMBERS FOLLOWED BY A "T" ARE PACKAGED IN TUBES. SEE SPECIFIC PART NUMBERS FOR AVAILABILITY.

EIGHT DIGIT PART NUMBERS FOLLOWED BY A "A" ARE PACKAGED IN TAPE AND REEL WITH PICKUP CAPS.

LEAD FREE:

ADD "HLF" SUFFIX AT THE END OF PART NUMBER FOR LEAD FREE OPTION, NOT AVAILABLE FOR -5YY,-5YYH,-6YY & -6YYH.

2. BODY MATERIAL:

MANUFACTURER'S OPTION OF NYLON OR PCT, GLASS FIBER REINFORCED, FLAME RETARDENT PER UL-94V-0.

COLOR: BLACK. OR MINERAL FILLED LCP, COLOR BLACK FLAME RETARDENT PER UL-94V-0.

PART NUMBERS WITH "H" SUFFIX WILL WITHSTAND EXPOSURE TO 260° PEAK TEMPERATURE FOR 20 SECONDS IN WAVE SOLDER, INFRA-RED OR VAPOR PHASE SOLDER PROCESS.

PART NUMBERS WITHOUT "H" SUFFIX WILL WITHSTAND EXPOSURE TO 260° PEAK TEMPERATURE FOR WAVE SOLDER PROCESS.

3. PIN MATERIAL: PHOS-BRONZE.

4. MEASURED WITH PART IN RESTRAINED CONDITION.

5. TWO SIDES OF PIN TIPS NOT PLATED. TYPICAL BOTH ENDS.

6. 2LBS/0.9KG MIN PIN RETENTION IN EITHER DIRECTION.

7. ±.010/0.25 TOL APPLIES TO ALL 'G' TAILS EXCEPT INDICATED PARTS ON TABLE WHERE +.010/0.25 -.000/0.00 APPLIES.

8. DETAIL N DIMENSIONS APPLY TO 2 POSITION PARTS ONLY

9. SECTION R-R DIMENSIONS ONLY APPLY TO RETENTION. PIN POSITIONS FOR 3 POSITION PARTS AND LARGER. RETENTION PIN POSITIONS LOCATED AT MANUFACTURER'S OPTION.

10. 5LB/2.3KG MAX INSERTION FORCE AND .25LB/.1KG MIN RETENTION FORCE PER RETENTIVE PIN USING .062/1.57 THICK CIRCUIT BOARDS AND RECOMMENDED HOLE PATTERN.

11. THESE PRODUCTS MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATION AS DESCRIBED IN GS-22-008.

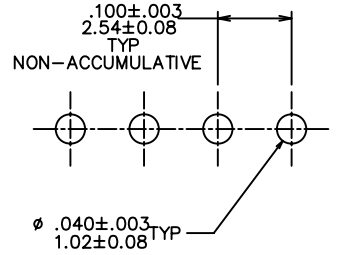
12. PLATING OPTIONS:
PERFORMANCE PLATING WILL BE EITHER GOLD OR GXT ON POST OR TAIL, OPTIONALLY (78~295u"/2~7.5u) TIN ON TAIL.

13."THIS PRODUCT HAS 100% TIN PLATING IN THE INTERFACE AND HAS NOT BEEN TESTED FOR WHISKER GROWTH IN ALL INTERCONNECT ENVIRONMENTS."

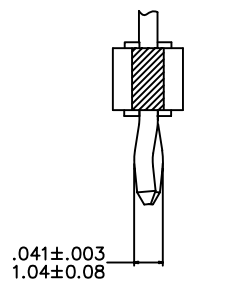


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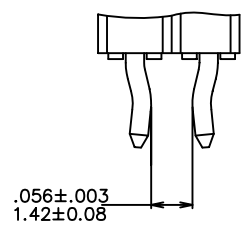
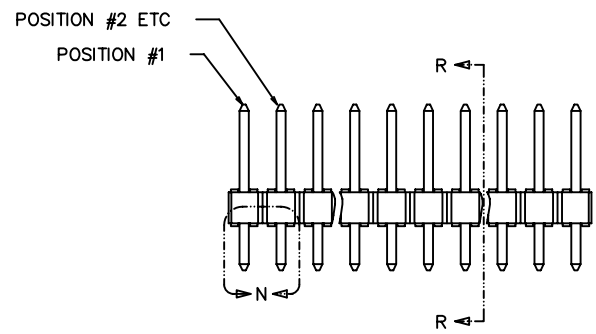
mat'l. code		surface ISO 1302 ✓ ISO 406 ISO 1101		tolerance tolerances unless otherwise specified		projection 		product family BERGSTIK	
ltr	ecn	no	dr	date		angles		title	
AP						linear	linear	BERGSTIK II HEADER	
						0±2'	linear	.100/2.54 SR SELF-RET	
						dr	D. WHITING	scale 1:1	
						enr	T.HANNA	dwg no	
						chr	T. BREWBAKER	sheet 2 of 4	
						app	T.HANNA	size	
								69190	
								A3	
sheet	revision							type Product Customer Drawing	
index	sheet								



RECOMMENDED HOLE PATTERN



SECTION R-R
NOTE 9



TWO POSITION
DETAIL N
NOTE 8



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mat'l. code		surface ISO 1302 ✓		tolerance ISO 406 ISO 1101		projection		product family BERGSTIK	
ltr	ecn	no	dr	date		tolerances unless otherwise specified		title	
AP						angles	linear	BERGSTIK II HEADER .100/2.54 SR SELF-RET	
						0°±2'		INCH/MM	
								scale 1:1	
						dr	D. WHITING	4/19/93	
						enr	T.HANNA	4/19/93	
						chr	T. BREWBAKER	4/19/93	
						app	T.HANNA	4/19/93	
sheet index	revision sheet							FCJ	
								dwg no 69190 sheet 3 of 4 size A3	
								type Product Customer Drawing	

PRODUCT NUMBER	TOTAL PIN LENGTH		TAIL LENGTH		MATING LENGTH		PACKAGING	NOTE	LF OPTION
	DIM F	DIM F	DIM G	DIM G	DIM H	DIM H			
	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC			
69190-XY	0.450	11.43	0.120	3.05	0.230	5.84	POLY BAGS/TUBES	-	NOTE 1,11 ↑ OB ↓
72348-XYH	0.515	13.08	0.120	3.05	0.295	7.49	POLY BAGS	-	
78229-XY	0.538	13.67	0.120	3.05	0.318	8.08	POLY BAGS/TUBES	-	
78250-XY	UNAVAILABLE							-	
78538-XY	0.620	15.75	0.120	3.05	0.400	10.16	POLY BAGS	-	
78594-XY	0.760	19.30	0.120	3.05	0.540	13.72	POLY BAGS	-	
79429-XY	0.695	17.65	0.120	3.05	0.475	12.07	POLY BAGS	-	
79978-XY	0.450	11.43	0.120	3.05	0.230	5.84	POLY BAGS/TUBES	7	
86505-XY	0.440	11.18	0.120	3.05	0.220	5.59	POLY BAGS	-	
87036-XY	0.830	21.08	0.120	3.05	0.610	15.49	POLY BAGS	-	
87068-XY	0.530	13.46	0.115	2.92	0.315	8.00	POLY BAGS	-	
87280-XY	1.000	25.40	0.120	3.05	0.780	19.81	POLY BAGS	-	
87452-XY	0.840	21.34	0.120	3.05	0.620	15.75	POLY BAGS	-	
87453-XY	0.990	25.15	0.120	3.05	0.770	19.56	POLY BAGS	-	
87918-XY	0.730	18.54	0.120	3.05	0.510	12.95	POLY BAGS	-	
90603-XY	0.430	10.92	0.100	2.54	0.230	5.84	POLY BAGS	-	
90610-XY	0.927	23.55	0.100	2.54	0.727	18.47	POLY BAGS	-	
94549-XYH	0.415	10.54	0.085	2.16	0.230	5.84	POLY BAGS	-	
69190-XY001HLF	0.425	10.80	0.095	2.41	0.230	5.84	POLY BAGS	-	
69190-XY002HLF	0.378	9.59	0.120	3.05	0.157	4.00	POLY BAGS/TUBES	-	



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tr		ecn no		dr		date		tolerances unless otherwise specified	
AP								linear .XX±.01/.XX±.03	
								linear .XXX±.005/.XXX±.013	
								linear .XXX±.0020/.XXX±.0051	
								INCH/MM	
								scale 1:1	
								dwg no sheet 4 of 4 size	
								69190 A3	
								type Product Customer Drawing	
sheet index		revision sheet							