Packaging

Product Specification

PS007203-0101

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Document Disclaimer

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Ordering Codes

Orders placed for ZiLOG components must include the component part number as shown in Figure 1. The part number consists of a “Z,” followed by a six-character alphanumeric product identifier, a two-letter package designator, a three-digit speed designator, a letter identifying the operating temperature range, and a letter identifying the environmental flow. If the component is a ROM device, an “R” follows the environmental flow designator with a four-character alphanumeric special lot code.

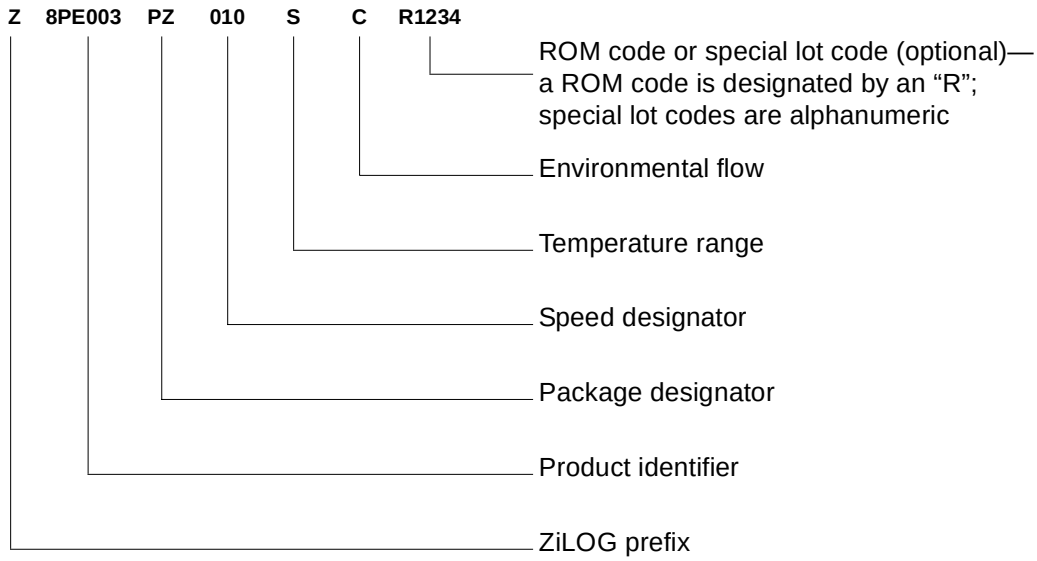


Figure 1. Current Part-Numbering Scheme

Package Designators

Note: In the current part-numbering scheme, the second letter is for the expansion of future packages. The “Z” is a filler (for example, the second “Z” in Z8PE003PZ010SC).

AZ = Low-Profile Quad Flat Package

BZ = Thin Quad Flat Package

EZ = Ceramic Window

FZ = Plastic Quad Flat Package

GZ = Pin Grid Array

HZ = Shrink Small Outline Package

IZ = Chip on Board

JZ = Small Outline Integrated Circuit Ceramic Window

KZ = Cerdip Window

LZ = Leadless Chip Carrier

MZ = 28-lead Plastic Dual In-Line Package, 300-ml Row

NC = Ball Grid Array—Ceramic

NF = Ball Grid Array—Flex

NP = Ball Grid Array—Plastic

NS = Ball Grid Array—Super

PZ = Plastic Dual In-Line Package

SZ = Small Outline Integrated Circuit

VZ = Plastic Leaded Chip Carrier

YZ = Plastic Leaded Chip Carrier Window

Temperature Range

E = Extended Temperature: -40 °C to +105 °C

S = Standard Temperature: 0 °C to +70 °C

Environmental Flow

A = Hermetic Stressed

C = Plastic Standard

D = Plastic Stressed

E = Hermetic Standard

H = Chip on Board

Figure 2 shows the previous part-numbering scheme. The previous part number consisted of a “Z,” followed by a five-character alphanumeric product identifier, a two-digit speed designator, a letter identifying the package, a letter identifying the operating temperature range, and a letter identifying the environmental flow. If the component is a ROM device, an “R” follows the environmental flow designator with a four-character alphanumeric special lot code.

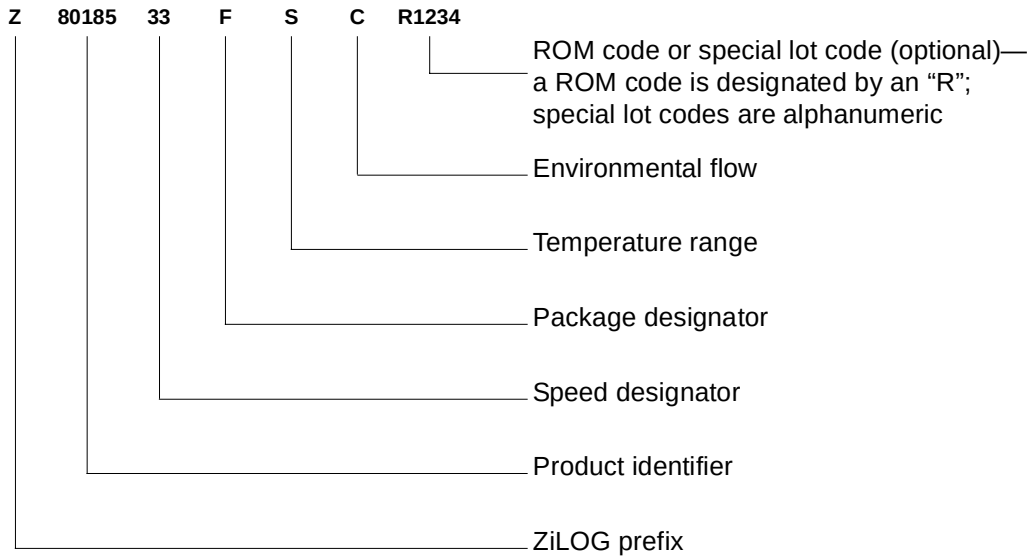


Figure 2. Previous Part-Numbering Scheme

Package Designators

A = Low-Profile Quad Flat Package

B = Thin Very Small Quad Flat Package

C = Ceramic Sidebrazed

D = Cerdip

E = Ceramic Window

F = Plastic Quad Flat Package

G = Ceramic Pin Grid Array

H = Shrink Small Outline Package

I = Printed Circuit Board Chip Carrier

J = Small Outline Integrated Circuit Ceramic Window

K = Cerdip Window

L = Ceramic Leadless Chip Carrier

M = Long Very Small Quad Flat Package

P = Plastic Dual In-Line Package

R = Ceramic Protopak

S = Small Outline Integrated Circuit

V = Plastic Leaded Chip Carrier

Y = Plastic Leaded Chip Carrier Window

Support Tool Package Designators

T = Emulation Module

Z = Support Tools

Temperature Range

Preferred

S = Standard Temperature: 0 °C to +70 °C

Longer Lead Time

E = Extended Temperature: -40 °C to +100 °C (-40 °C to +105 °C for consumer products)

M = Military: -55 °C to +125 °C

A = Automotive: -40 °C to +125 °C

Environmental Flow

Preferred

C = Plastic Standard

E = Hermetic Standard

Longer Lead Time

A = Hermetic Stressed

B = 883 Class B Military

D = Plastic Stressed

E = Military Temperature Range

Tape, Reel, Tray, and Tube Counts

Tape and Reel Counts

- 18-lead Small Outline Integrated Circuit = 2,000 units per reel minimum
- 20-lead Small Outline Integrated Circuit = 1,800 units per reel minimum
- 28-lead Small Outline Integrated Circuit = 1,800 units per reel minimum
- 44-lead Plastic Leaded Chip Carrier = 500 units per reel minimum
- 68-lead Plastic Leaded Chip Carrier = 250 units per reel minimum
- 84-lead Plastic Leaded Chip Carrier = 250 units per reel minimum
- 44-lead Quad Flat Package = 750 units per reel minimum
- 80-lead Quad Flat Package = 450 units per reel minimum
- 100-lead Quad Flat Package = 450 units per reel minimum
- 100-lead Low-Profile Quad Flat Package = 500 units per reel minimum

Tray Counts

- 44-lead Quad Flat Package = 96 pieces per tray
- 64-lead Quad Flat Package =160 pieces per tray
- 80-lead Quad Flat Package = 66 pieces per tray
- 100-lead Quad Flat Package = 66 pieces per tray
- 144-lead Quad Flat Package = 24 pieces per tray
- 160-lead Quad Flat Package = 24 pieces per tray
- 48-lead Low-Profile Quad Flat Package = 60 pieces per tray
- 100-lead Low-Profile Quad Flat Package = 90 pieces per tray

Tube Counts

- 18-lead Plastic Dual In-Line Package = 20 per rail
- 20-lead Plastic Dual In-Line Package = 20 per rail
- 28-lead Plastic Dual In-Line Package = 15 per rail
- 40-lead Plastic Dual In-Line Package = 10 per rail
- 42-lead Plastic Dual In-Line Package = 15 per rail
- 48-lead Plastic Dual In-Line Package = 10 per rail

- 52-lead Plastic Dual In-Line Package = 10 per rail
- 64-lead Plastic Dual In-Line Package = 10 per rail
- 28-lead Plastic Leaded Chip Carrier = 39 per rail
- 44-lead Plastic Leaded Chip Carrier = 25 per rail
- 68-lead Plastic Leaded Chip Carrier = 20 per rail
- 84-lead Plastic Leaded Chip Carrier = 15 per rail
- 18-lead Small Outline Integrated Circuit = 40 per rail
- 20-lead Small Outline Integrated Circuit = 38 per rail
- 28-lead Small Outline Integrated Circuit = 27 per rail
- 20-lead Shrink Small Outline Package = 67 per rail
- 48-lead Shrink Small Outline Package = 30 per rail

Solderability

Unless otherwise noted, the solderability uses MIL-STD-883C Method 2003.5, eight hours steam age.

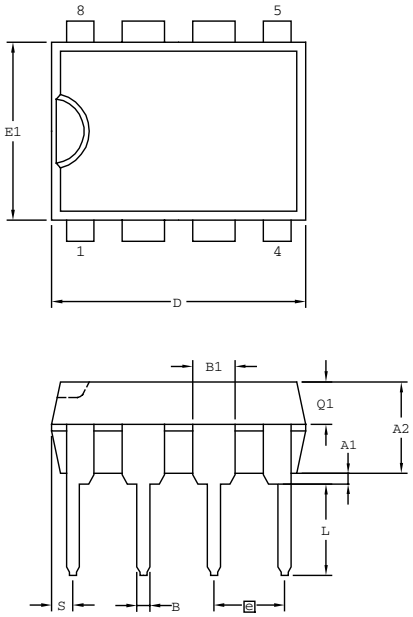
Mark Permanency

Unless otherwise noted, the following applies:

3X soak into Alpha 2110 at 63–70 °C
30 seconds duration each soak
Mech. brush after each soak

Plastic Dual In-Line Packages (PDIPs)

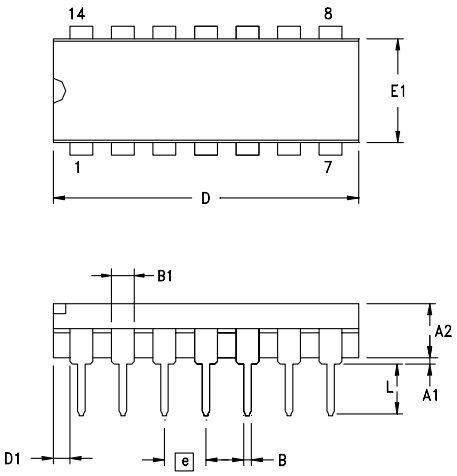
ZiLOG offers 8-lead (Figure 3), 14-lead (Figure 4 on page 8), 18-lead (Figure 5 on page 9), 20-lead (Figure 6 on page 10), 22-lead (Figure 7 on page 11), 28-lead (Figure 8 on page 12), 40-lead (Figure 9 on page 13), 48-lead (Figure 10 on page 14), and 64-lead (Figure 11 on page 15) PDIPs.



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.38	0.81	0.015	0.032
A2	3.25	3.81	0.128	0.150
B	0.38	0.53	0.015	0.021
B1	1.40	1.65	0.055	0.065
C	0.20	0.30	0.008	0.012
D	9.02	9.78	0.355	0.385
E	7.62	8.26	0.300	0.325
E1	6.10	6.60	0.240	0.260
e	2.54 BSC		0.100 BSC	
eA	7.87	9.14	0.310	0.360
L	3.18	3.43	0.125	0.135
Q1	1.40	1.65	0.055	0.065
S	0.64	0.89	0.025	0.035

CONTROLLING DIMENSIONS : MM.

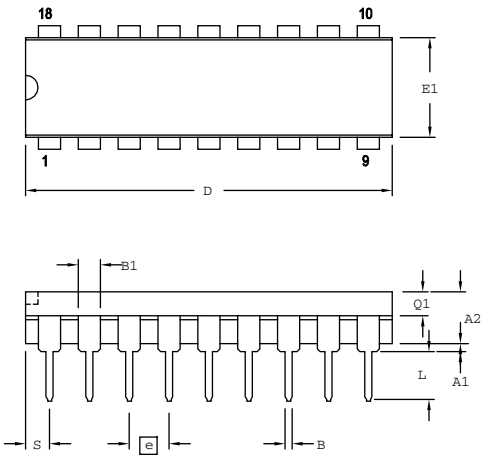
Figure 3. 8-Lead Plastic Dual In-Line Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.38	–	.015	–
A2	3.25	3.43	.128	.135
B	0.36	0.53	.014	.021
B1	1.14	1.78	.045	.070
C	0.20	0.36	.008	.014
D	18.67	19.69	.735	.775
E	7.62	8.26	.300	.325
E1	6.22	6.48	.245	.255
e	2.54 BSC		.100 BSC	
eA	7.87	9.14	.310	.360
L	3.18	3.81	.125	.150
D1	1.27	–	.005	–

CONTROLLING DIMENSIONS: INCH

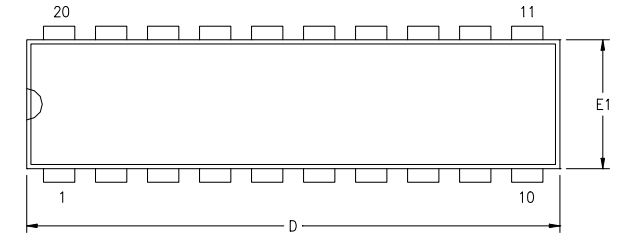
Figure 4. 14-Lead Plastic Dual In-Line Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.51	0.81	.020	.032
A2	3.25	3.43	.128	.135
B	0.38	0.53	.015	.021
B1	1.14	1.65	.045	.065
C	0.23	0.38	.009	.015
D	22.35	23.37	.880	.920
E	7.62	8.13	.300	.320
E1	6.22	6.48	.245	.255
e	2.54 BSC		.100 BSC	
eA	7.87	9.40	.310	0.370
L	3.18	3.81	.125	.150
Q1	1.47	1.65	.058	.065
S	0.89	1.65	.035	.065

CONTROLLING DIMENSIONS : INCH

Figure 5. 18-Lead Plastic Dual In-Line Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.38	0.81	.015	.032
A2	3.25	3.68	.128	.145
B	0.41	0.51	.016	.020
B1	1.47	1.57	.058	.062
C	0.20	0.30	.008	.012
D	25.65	26.16	1.010	1.030
E	7.49	8.26	.295	.325
E1	6.10	6.65	.240	.262
e	2.54 BSC		.100 BSC	
eA	7.87	9.14	.310	.360
L	3.18	3.43	.125	.135
Q1	1.42	1.65	.056	.065
S	1.52	1.65	.060	.065

CONTROLLING DIMENSIONS : INCH

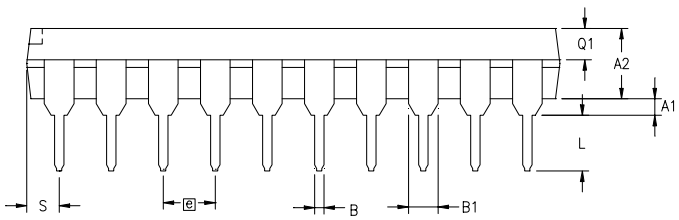
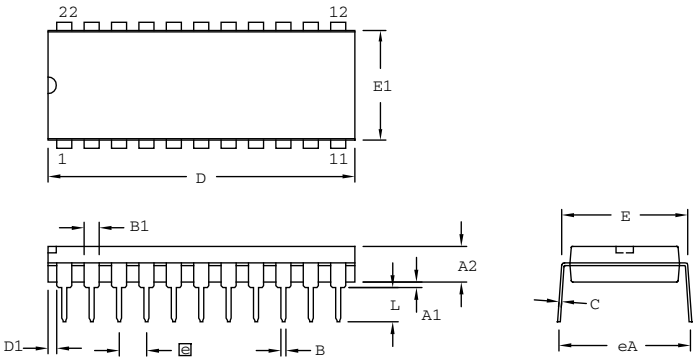


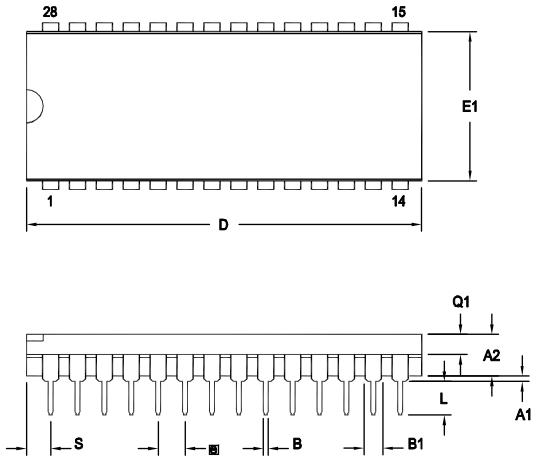
Figure 6. 20-Lead Plastic Dual In-Line Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.38	1.02	0.015	0.040
A2	3.68	3.94	0.145	0.155
B	0.36	0.56	0.014	0.022
B1	1.14	1.65	0.045	0.065
C	0.23	0.38	0.009	0.015
D	27.60	28.45	1.065	1.120
E	9.91	10.80	0.390	0.425
E1	8.38	9.40	0.330	0.370
e	2.54 BSC		0.100 BSC	
eA	10.67	11.94	0.420	0.470
L	2.92	4.10	0.115	0.160
D1	0.13	-	0.005	-

CONTROLLING DIMENSIONS: INCH

Figure 7. 22-Lead Plastic Dual In-Line Package



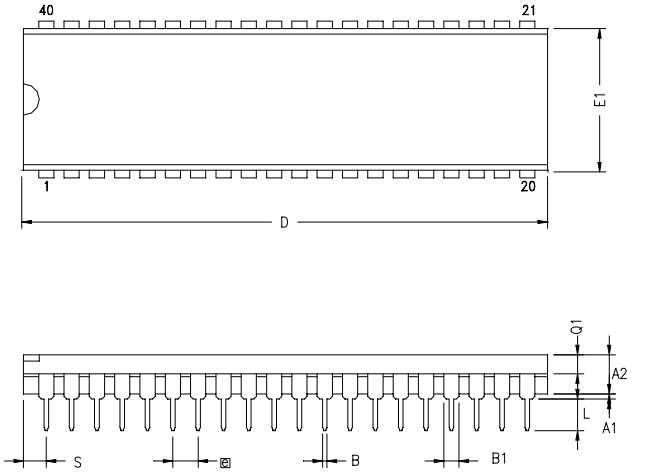
SYMBOL	OPT #	MILLIMETER		INCH	
		MIN	MAX	MIN	MAX
A1		0.38	1.02	.015	.040
A2		3.18	4.19	.125	.165
B		0.38	0.53	.015	.021
B1	01	1.40	1.65	.055	.065
	02	1.14	1.40	.045	.055
C		0.23	0.38	.009	.015
D	01	36.58	37.34	1.440	1.470
	02	35.31	35.94	1.390	1.415
E		15.24	15.75	.600	.620
E1	01	13.59	14.10	.535	.555
	02	12.83	13.08	.505	.515
e		2.54 TYP		.100 BSC	
eA		15.49	16.76	.610	.660
L		3.05	3.81	.120	.150
Q1	01	1.40	1.91	.055	.075
	02	1.40	1.78	.055	.070
S	01	1.52	2.29	.060	.090
	02	1.02	1.52	.040	.060

CONTROLLING DIMENSIONS : INCH

OPTION TABLE	
OPTION #	PACKAGE
01	STANDARD
02	IDF

Note: ZILOG supplies both options for production. Component layout PCB design should cover bigger option 01.

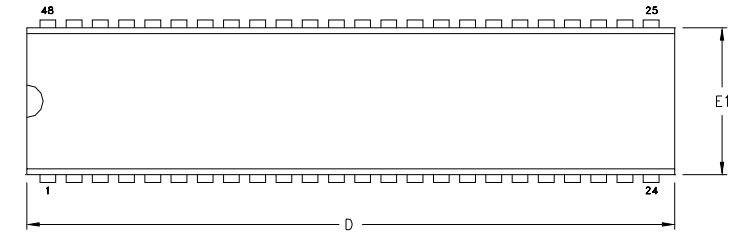
Figure 8. 28-Lead Plastic Dual In-Line Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.51	1.02	.020	.040
A2	3.18	3.94	.125	.155
B	0.38	0.53	.015	.021
B1	1.02	1.52	.040	.060
C	0.23	0.38	.009	.015
D	52.07	52.58	2.050	2.070
E	15.24	15.75	.600	.620
E1	13.59	14.22	.535	.560
e	2.54 TYP		.100 TYP	
eA	15.49	16.76	.610	.660
L	3.05	3.81	.120	.150
Q1	1.40	1.91	.055	.075
S	1.52	2.29	.060	.090

CONTROLLING DIMENSIONS : INCH

Figure 9. 40-Lead Plastic Dual In-Line Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.38	0.81	.015	.032
A2	3.68	4.19	.145	.165
B	0.38	0.53	.015	.021
B1	1.02	1.52	.040	.060
C	0.23	0.38	.009	.015
D	61.98	62.74	2.440	2.470
E	15.24	15.75	.600	.620
E1	13.72	14.22	.540	.560
e	2.54 BSC		.100 BSC	
eA	15.49	16.76	.610	.660
L	3.18	3.81	.125	.150
Q1	1.52	1.91	.060	.075
S	1.52	2.29	.060	.090

CONTROLLING DIMENSIONS : INCH

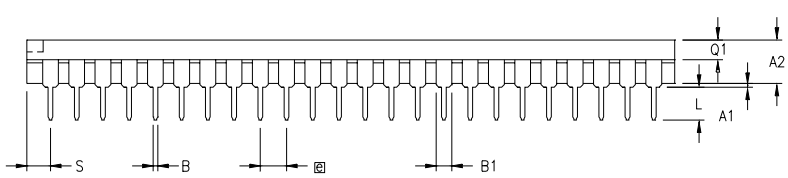
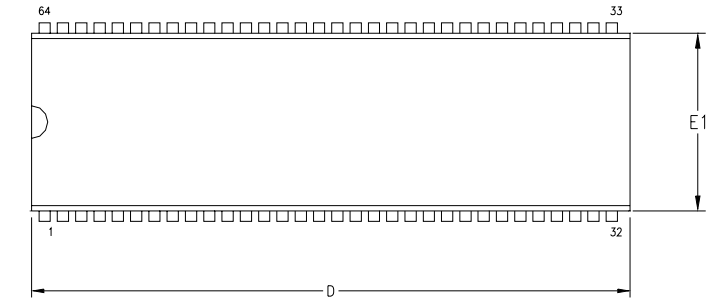


Figure 10. 48-Lead Plastic Dual In-Line Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.38	1.07	.015	.042
A2	3.68	3.94	.145	.155
B	0.38	0.53	.015	.021
B1	0.94	1.09	.037	.043
C	0.23	0.38	.009	.015
D	57.40	58.17	2.260	2.290
E	18.80	19.30	.740	.760
E1	16.76	17.27	.660	.680
e	1.78 BSC		0.070 BSC	
eA	19.30	20.32	.760	.800
L	3.18	3.81	.125	.150
Q1	1.65	1.91	.065	.075
S	1.02	1.78	.040	.070

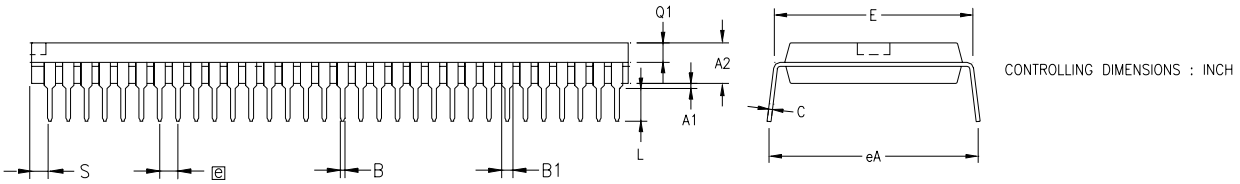
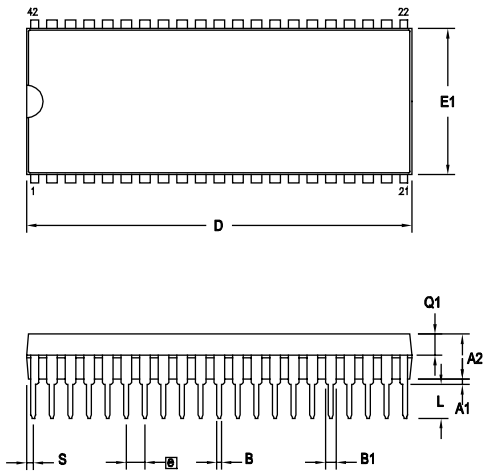


Figure 11. 64-Lead Plastic Dual In-Line Package with 0.070" Lead Centers

Shrink Dual In-Line Packages (SDIPs)

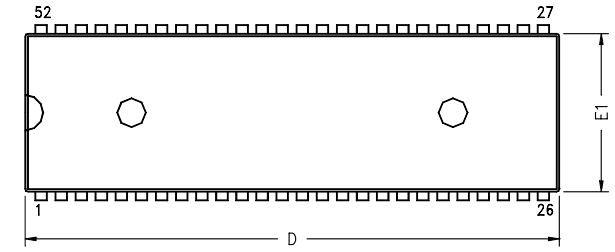
ZiLOG offers 42-lead (Figure 12) and 52-lead (Figure 13 on page 17) SDIPs.



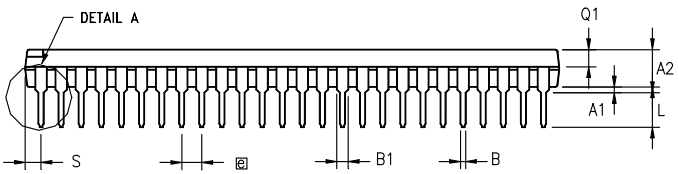
SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.51		0.020	
A2	3.25	3.94	0.128	0.155
B	0.38	0.56	0.015	0.022
B1	0.89	1.14	0.035	0.045
C	0.20	0.30	0.008	0.012
D	36.70	36.96	1.445	1.455
E	15.24	15.75	0.600	0.620
E1	13.59	13.97	0.535	0.550
e	1.778 TYP		.070 TYP	
eA	15.49	17.02	0.610	0.670
L	3.05	3.43	0.120	0.135
Q1	1.40	1.91	0.055	0.075
S	0.51	0.76	0.020	0.030

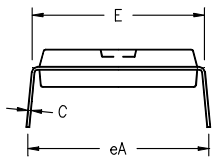
CONTROLLING DIMENSIONS : INCH

Figure 12. 42-Lead Shrink Dual In-Line Package

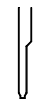


SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.51	–	0.020	–
A2	3.25	3.94	0.128	0.155
B	0.38	0.53	0.015	0.021
B1	0.89	1.14	0.035	0.045
C	0.23	0.38	0.009	0.015
D	–	47.50	–	1.870
E	15.24	15.75	0.600	0.620
E1	13.72	14.10	0.540	0.555
e	1.778 TYP		.070 TYP	
eA	15.49	16.76	0.610	.660
L	3.05	3.68	0.120	0.145
Q1	1.40	1.91	0.055	0.075
S	0.64	1.78	0.025	0.070





CONTROLLING DIMENSION IN INCH

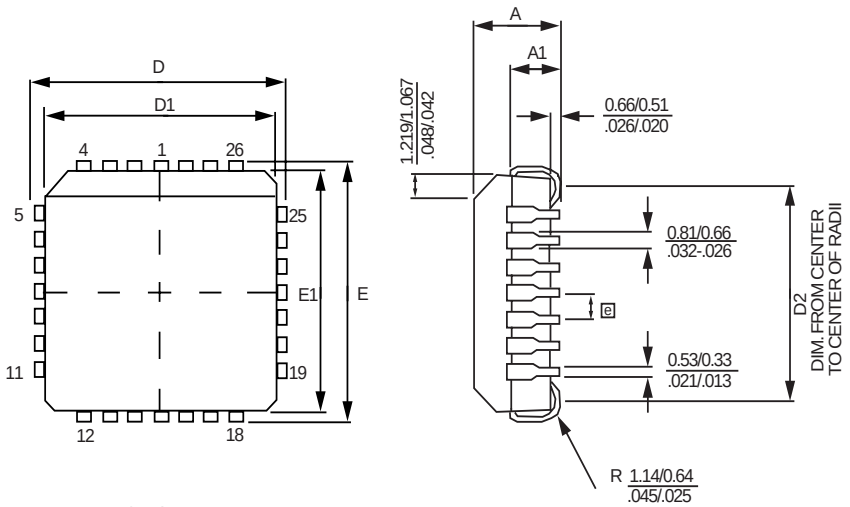


OPTIONAL END LEAD CONFIG
DETAIL A

Figure 13. 52-Lead Shrink Dual In-Line Package

Plastic Leaded Chip Carriers (PLCCs)

ZiLOG offers 28-lead (Figure 14), 44-lead (Figure 15 on page 19), 68-lead (Figure 16 on page 20), and 84-lead (Figure 17 on page 21) PLCCs.

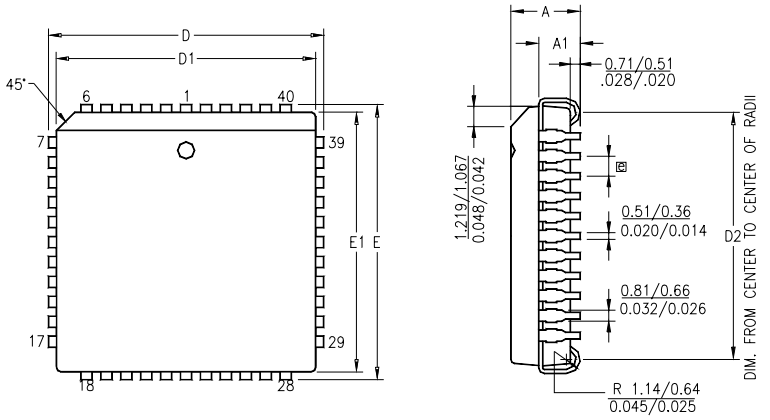


SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	4.19	4.57	.165	.180
A1	2.41	2.92	.095	.115
D/E	12.32	12.57	.485	.495
D1/E1	11.43	11.58	.450	.456
D2	9.91	10.92	.390	.430
e	1.27 TYP		.050 TYP	

NOTES:

1. CONTROLLING DIMENSIONS: INCH
2. LEADS ARE COPLANAR WITHIN .004 INCH.
3. DIMENSION: MM / INCH

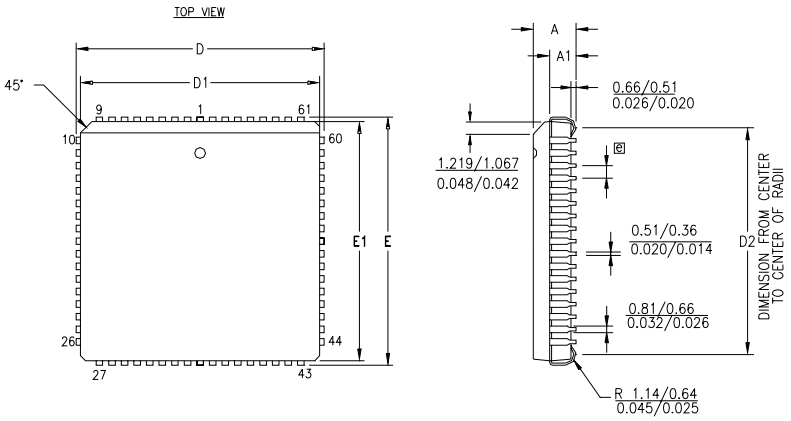
Figure 14. 28-Lead Plastic Leaded Chip Carrier



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	4.27	4.57	0.168	0.180
A1	2.41	2.92	0.095	0.115
D/E	17.40	17.65	0.685	0.695
D1/E1	16.51	16.66	0.650	0.656
D2	15.24	16.00	0.600	0.630
e	1.27 BSC		0.050 BSC	

NOTES:
1. CONTROLLING DIMENSION : INCH
2. LEADS ARE COPLANAR WITHIN 0.004".
3. DIMENSION : MM
INCH

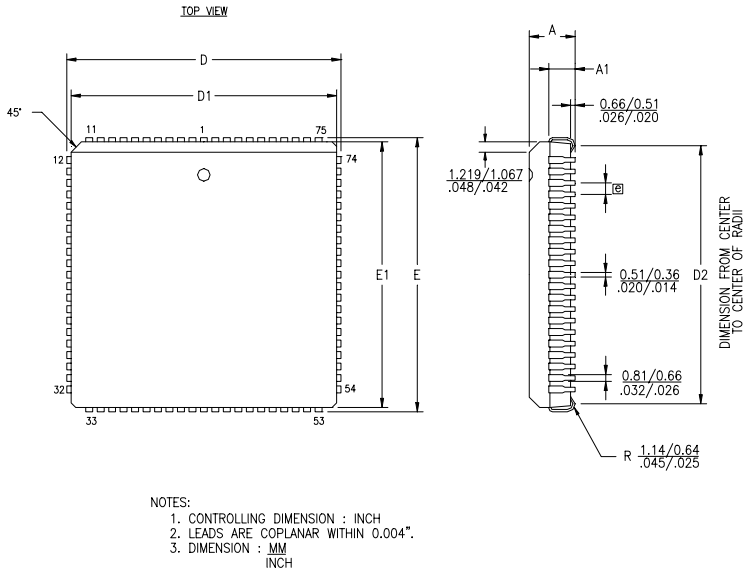
Figure 15. 44-Lead Plastic Leaded Chip Carrier



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	4.32	4.57	.170	.180
A1	2.43	2.92	.095	.115
D/E	25.02	25.40	.985	1.000
D1/E1	24.13	24.33	.950	.958
D2	22.86	23.62	.900	.930
e	1.27 BSC		.050 BSC	

NOTE:
1. CONTROLLING DIMENSIONS : INCH.
2. LEADS ARE COPLANAR WITHIN 0.004 IN. RANGE.
3. DIMENSION : MM / INCH.

Figure 16. 68-Lead Plastic Leaded Chip Carrier



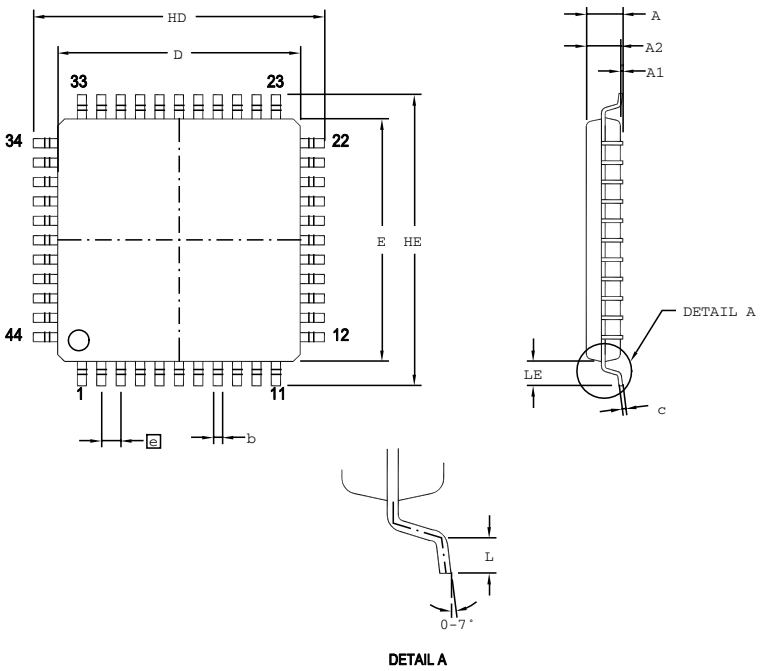
SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	4.32	4.57	.170	.180
A1	2.43	2.92	.095	.115
D/E	30.10	30.35	1.185	1.195
D1/E1	29.21	29.41	1.150	1.158
D2	27.94	28.58	1.100	1.125
e	1.27 BSC		.050 BSC	

NOTES:
1. CONTROLLING DIMENSION : INCH
2. LEADS ARE COPLANAR WITHIN 0.004".
3. DIMENSION : MM
INCH

Figure 17. 84-Lead Plastic Leaded Chip Carrier

Low-Profile Quad Flat Packages (LQFPs)

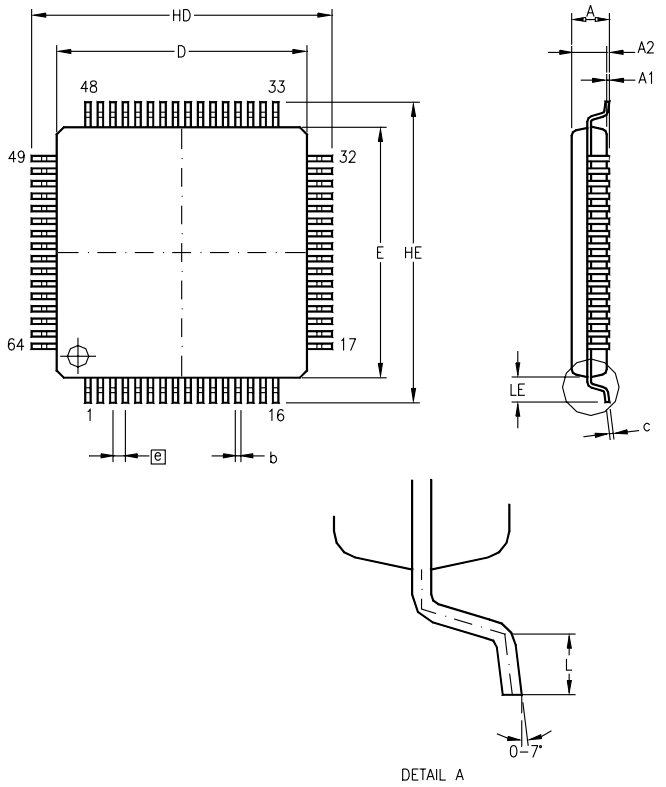
ZiLOG offers 44-lead (Figure 18), 64-lead (Figure 19 on page 23 and Figure 20 on page 24), 100-lead (Figure 21 on page 25), 144-lead (Figure 22 on page 26), and 160-lead (Figure 23 on page 27) low-profile quad flat packages.



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	1.40	1.60	0.055	0.063
A1	0.05	0.15	0.002	0.006
A2	1.35	1.45	0.053	0.057
b	0.30	0.45	0.012	0.018
c	0.09	0.20	0.004	0.008
HD	11.75	12.25	0.463	0.482
D	9.90	10.10	0.390	0.398
HE	11.75	12.25	0.463	0.482
E	9.90	10.10	0.390	0.398
e	0.80 BSC		0.031 BSC	
L	0.45	0.75	0.018	0.030
LE	1.00 REF		0.039 REF	

1. CONTROLLING DIMENSIONS : mm
2. MAX. COPLANARITY : .10mm / 0.004"

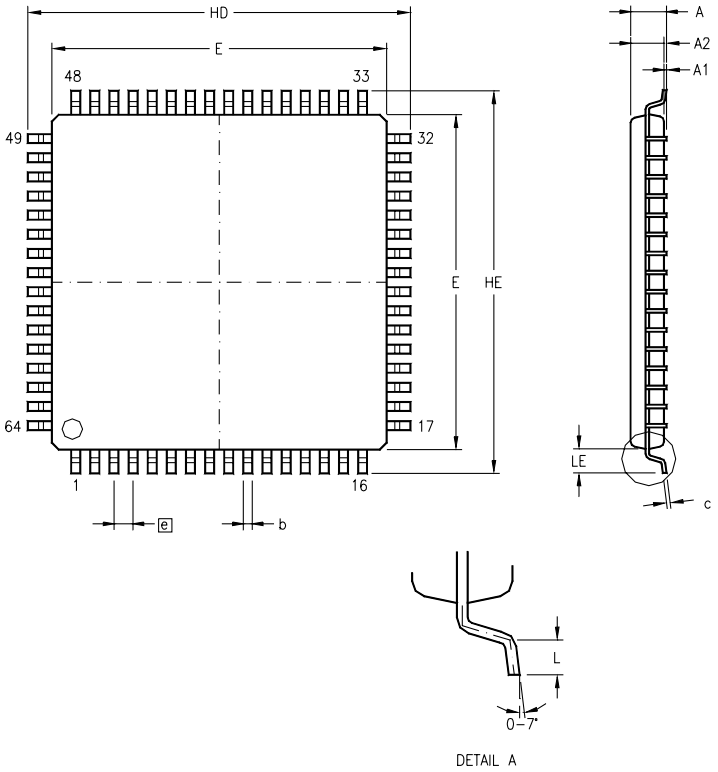
Figure 18. 44-Lead Plastic Low-Profile Quad Flat Package (10 x 10 x 1.4 mm)



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	1.40	1.60	0.055	0.063
A1	0.05	0.15	0.002	0.006
A2	1.35	1.45	0.053	0.057
b	0.17	0.27	0.007	0.011
c	0.09	0.20	0.004	0.008
HD	11.75	12.25	0.463	0.482
D	9.90	10.10	0.390	0.398
HE	11.75	12.25	0.463	0.482
E	9.90	10.10	0.390	0.398
e	0.50 BSC		0.0197 BSC	
L	0.45	0.75	0.018	0.030
LE	1.00 REF		0.039 REF	

1. CONTROLLING DIMENSIONS : mm
2. MAX. COPLANARITY : .10mm / 0.004"

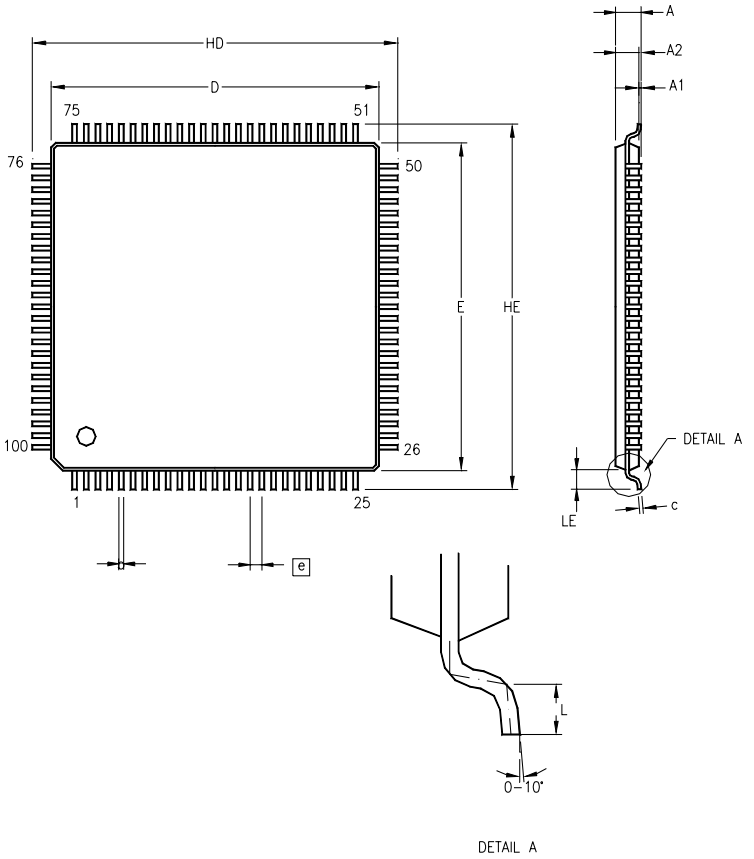
Figure 19. 64-Lead Plastic Low-Profile Quad Flat Package (10 x 10 x 1.4 mm)



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	1.40	1.60	0.055	0.063
A1	0.05	0.15	0.002	0.006
A2	1.35	1.45	0.053	0.057
b	0.30	0.45	0.012	0.018
c	0.09	0.20	0.004	0.008
HD	15.80	16.20	0.622	0.638
D	13.90	14.10	0.547	0.555
HE	15.80	16.20	0.622	0.638
E	13.90	14.10	0.547	0.555
e	0.80 BSC		0.031 BSC	
L	0.45	0.75	0.018	0.030
LE	1.00 REF		0.039 REF	

1. CONTROLLING DIMENSIONS : mm
2. MAX. COPLANARITY : .10mm / 0.004"

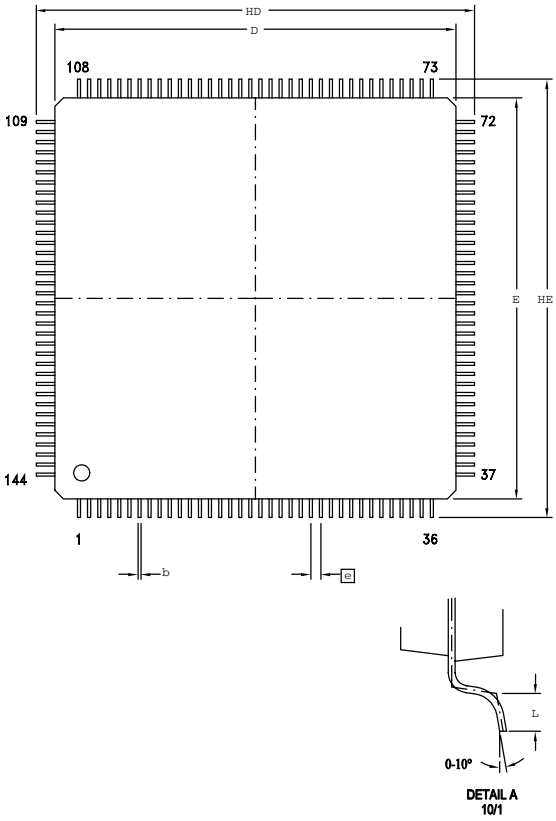
Figure 20. 64-Lead Plastic Low-Profile Quad Flat Package (14 x 14 x 1.4 mm)



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	1.35	1.60	.053	.063
A1	0.05	0.20	.002	.008
A2	1.30	1.50	.051	.059
b	0.15	0.26	.006	.010
c	0.10	0.20	.004	.008
HD	15.85	16.15	.624	.636
D	13.90	14.10	.547	.555
HE	15.85	16.15	.624	.636
E	13.90	14.10	.547	.555
e	0.50 BSC		.0197 BSC	
L	0.35	0.65	.014	.026
LE	0.90	1.10	.035	.043

1. CONTROLLING DIMENSIONS : MM
2. MAX COPLANARITY : .10mm / .004"

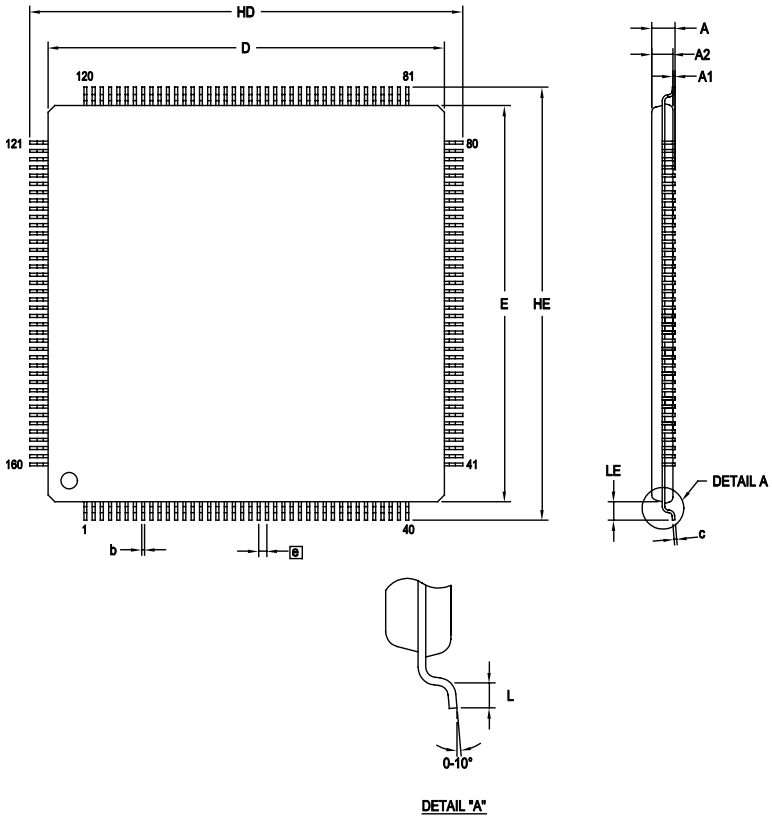
Figure 21. 100-Lead Plastic Low-Profile Quad Flat Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	1.40	1.60	0.055	0.063
A1	0.05	0.15	0.002	0.006
A2	1.35	1.45	0.053	0.057
b	0.17	0.27	0.007	0.011
c	0.09	0.20	0.004	0.008
HD	21.75	22.25	0.856	0.876
D	19.90	20.10	0.783	0.791
HE	21.75	22.25	0.856	0.876
E	19.90	20.10	0.783	0.791
e	0.50 BSC		0.020 BSC	
L	0.35	0.65	0.014	0.026
LE	1.00 REF		.039 REF	

CONTROLLING DIMENSIONS : MM
MAX COPLANARITY : .10mm
.004"

Figure 22. 144-Lead Plastic Low-Profile Quad Flat Package



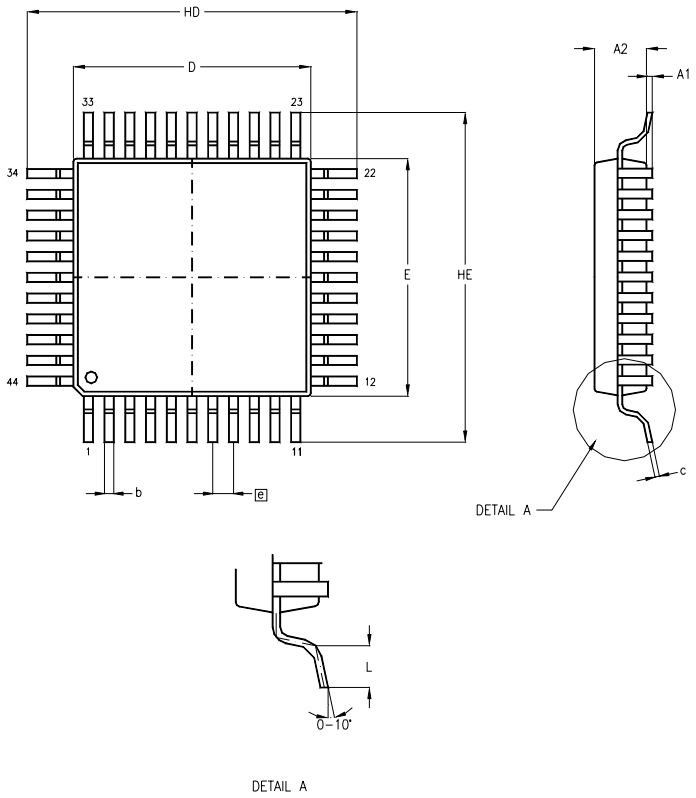
SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	1.35	1.60	0.053	0.063
A1	0.05	0.15	0.002	0.006
A2	1.35	1.45	0.053	0.057
b	0.15	0.26	0.006	0.010
c	0.10	0.20	0.004	0.008
HD	25.85	26.15	1.018	1.030
D	23.90	24.10	0.941	0.949
HE	25.85	26.15	1.018	1.030
E	23.90	24.10	0.941	0.949
e	0.50 BSC		0.0197 BSC	
L	0.45	0.75	0.018	0.030
LE	0.90	1.10	0.035	0.043

1. CONTROLLING DIMENSIONS : MM
2. MAX COPLANARITY : .10mm / 0.004"

Figure 23. 160-Lead Plastic Low-Profile Quad Flat Package

Plastic Quad Flat Packages (QFPs)

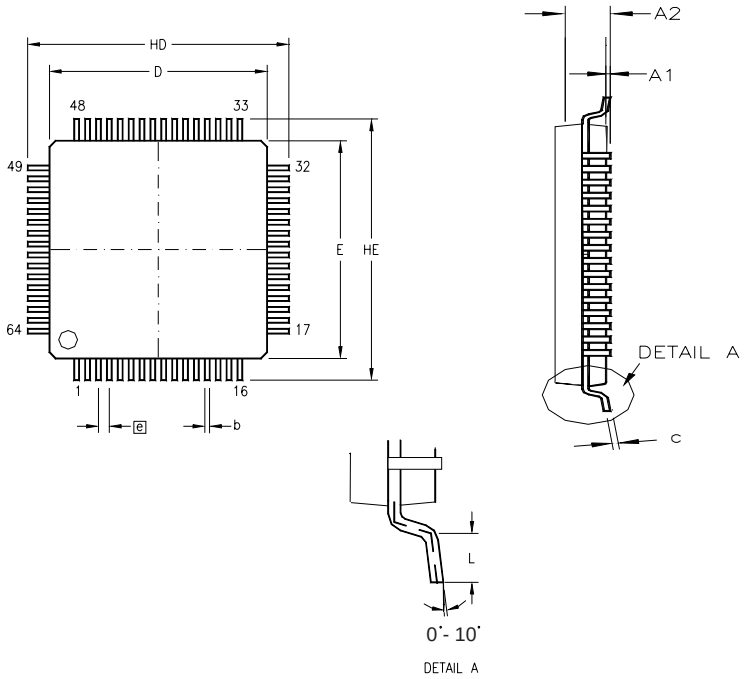
ZiLOG offers 44-lead (Figure 24), 64-lead (Figure 25 on page 29), 80-lead (Figure 26 on page 30), 100-lead (Figure 27 on page 31), 132-lead (Figure 28 on page 32), 144-lead (Figure 29 on page 33), 160-lead (Figure 30 on page 34), 208-lead (Figure 31 on page 35), and 256-lead (Figure 32 on page 36) plastic QFPs.



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.05	0.25	.002	.010
A2	2.00	2.25	.078	.089
b	0.25	0.45	.010	.018
c	0.13	0.20	.005	.008
HD	13.70	14.15	.539	.557
D	9.90	10.10	.390	.398
HE	13.70	14.15	.539	.557
E	9.90	10.10	.390	.398
e	0.80 BSC		.0315 BSC	
L	0.60	1.20	.024	.047

NOTES:
1. CONTROLLING DIMENSIONS : MILLIMETER
2. LEAD COPLANARITY : MAX .10 (.004")

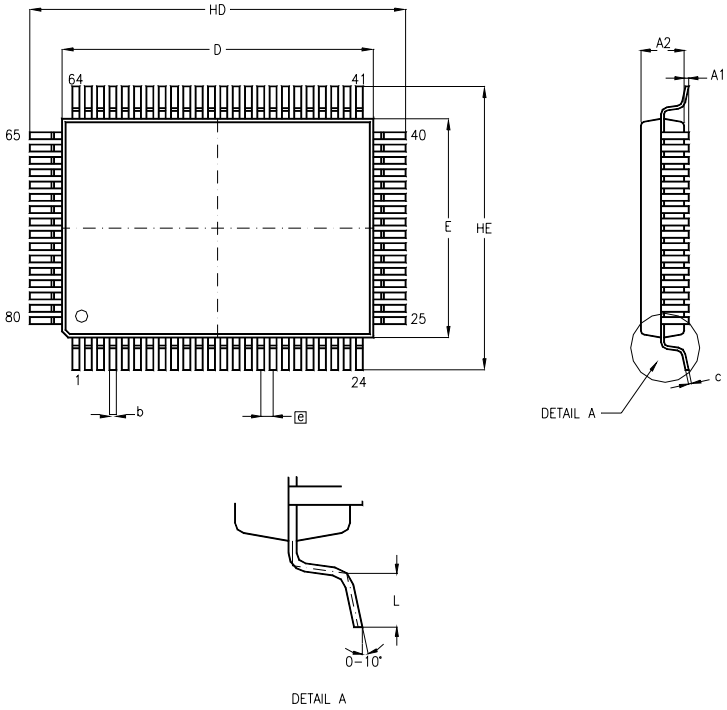
Figure 24. 44-Lead Plastic Quad Flat Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.10	0.25	.004	.010
A2	2.55	3.05	.100	⚠.120
b	0.30	0.45	.012	.018
c	0.13	0.23	.005	.010
HD	16.95	17.45	.667	.687
D	13.90	14.10	.547	.555
HE	16.95	17.45	.667	.687
E	13.90	14.10	.547	.555
e	0.80 TYP		.0315 TYP	
L	0.63	1.03	.025	.041

NOTES:
1. CONTROLLING DIMENSIONS: MILLIMETER
2. LEAD COPLANARITY: MAX .10 / .004"

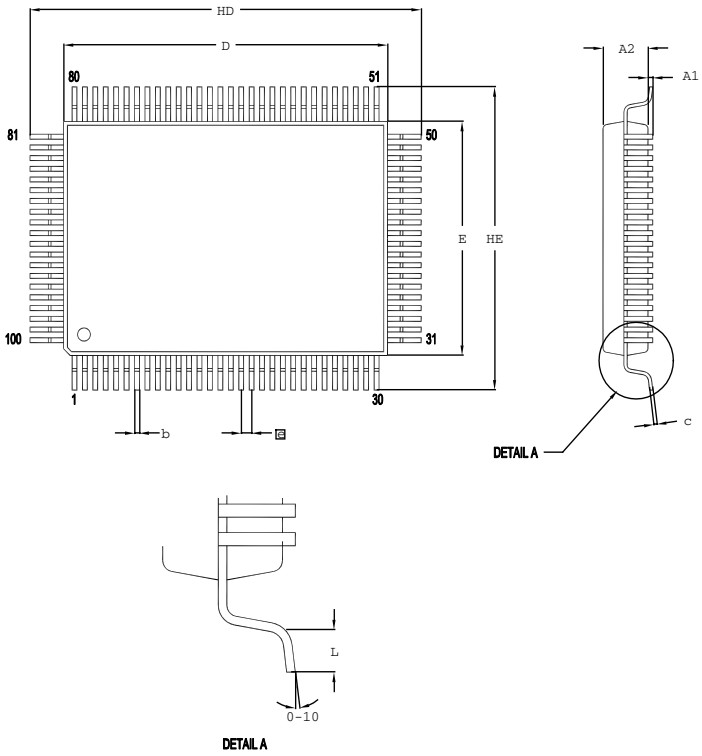
Figure 25. 64-Lead Plastic Quad Flat Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.10	0.30	.004	.012
A2	2.60	2.80	.102	.110
b	0.30	0.45	.012	.018
c	0.13	0.20	.005	.008
HD	23.70	24.15	.933	.951
D	19.90	20.10	.783	.791
HE	17.70	18.15	.697	.715
E	13.90	14.10	.547	.555
e	0.80 BSC		.0315 BSC	
L	0.70	1.10	.028	.043

NOTES:
1. CONTROLLING DIMENSIONS : MILLIMETER
2. LEAD COPLANARITY : MAX .10 (.004")

Figure 26. 80-Lead Plastic Quad Flat Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A1	0.10	0.30	.004	.012
A2	2.60	2.90	.102	.114
b	0.25	0.40	.010	.016
c	0.13	0.20	.005	.008
HD	23.70	24.15	.933	.951
D	19.90	20.10	.783	.791
HE	17.70	18.15	.697	.715
E	13.90	14.10	.547	.555
e	0.65 BSC		.0256 BSC	
L	0.70	1.10	.028	.043

NOTES:
1. CONTROLLING DIMENSIONS : MILLIMETER
2. MAX COPLANARITY : .10 / .004

Figure 27. 100-Lead Plastic Quad Flat Package

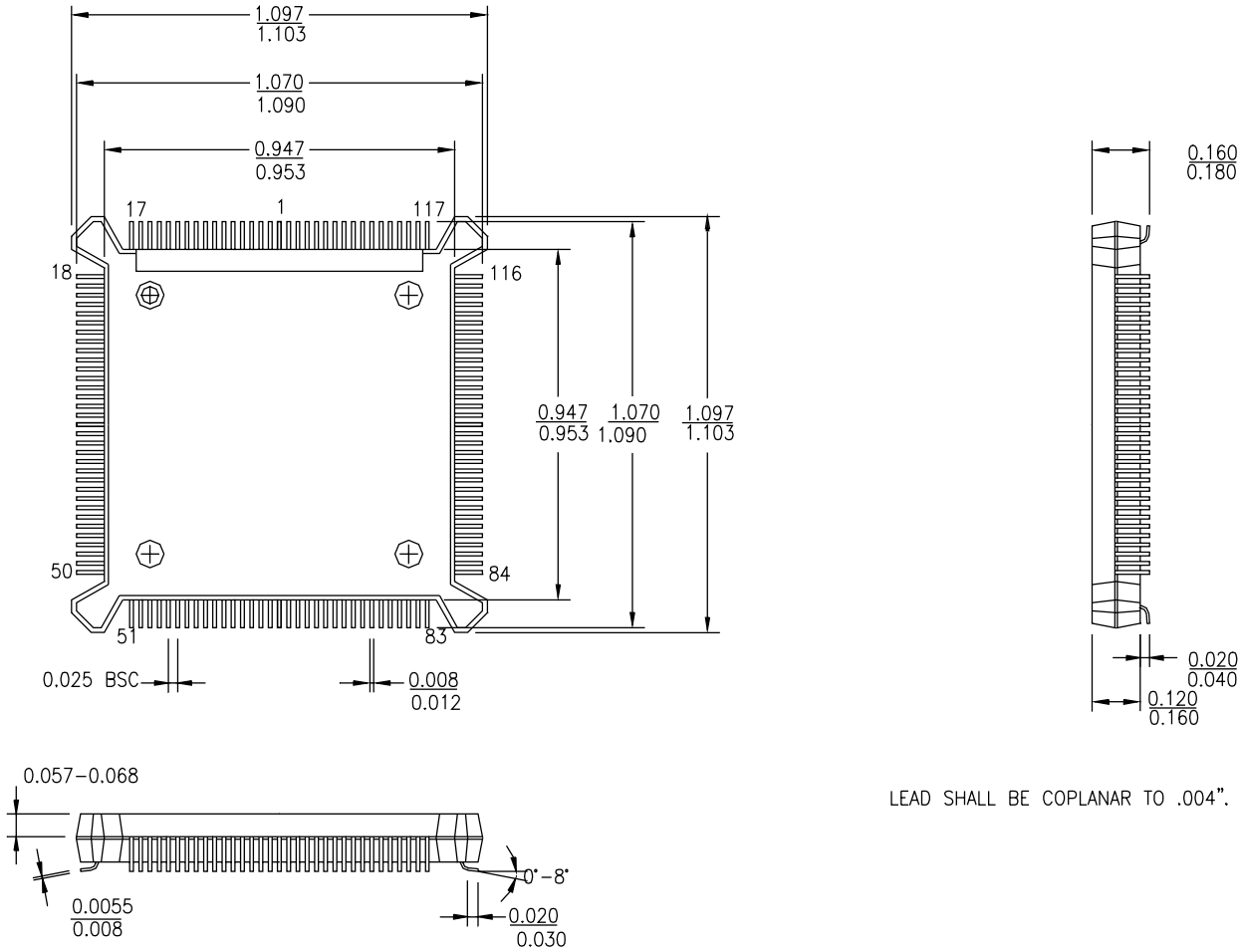
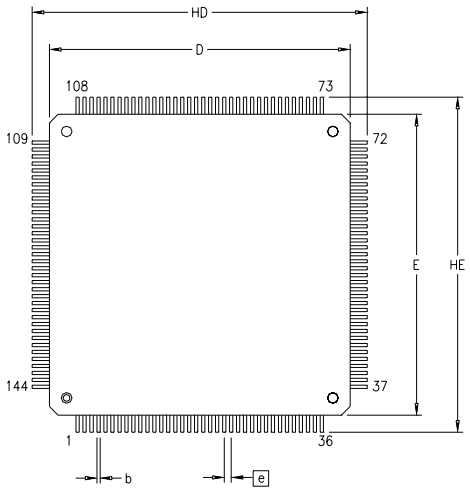
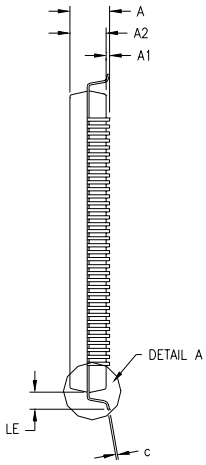


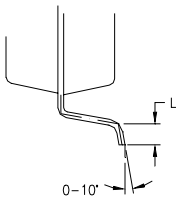
Figure 28. 132-Lead Plastic Quad Flat Package





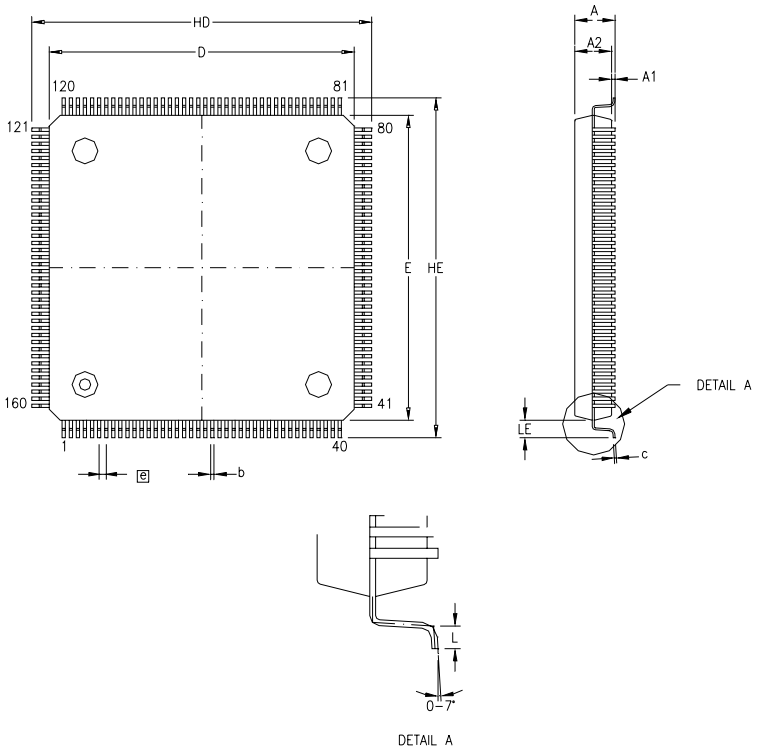
SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	3.42	4.07	.135	.160
A1	0.25	–	.010	–
A2	3.17	3.67	.125	.144
b	0.22	0.38	.009	.015
c	0.13	0.23	.004	.009
HD	30.95	31.45	1.219	1.238
D	27.90	28.10	1.098	1.106
HE	30.95	31.45	1.219	1.238
E	27.90	28.10	1.098	1.106
e	0.65 BSC		.0256 BSC	
L	0.65	0.95	.026	.037
LE	1.60 REF		.063 REF	

CONTROLLING DIMENSIONS : MM
MAX COPLANARITY : .10mm / .004"



DETAIL A

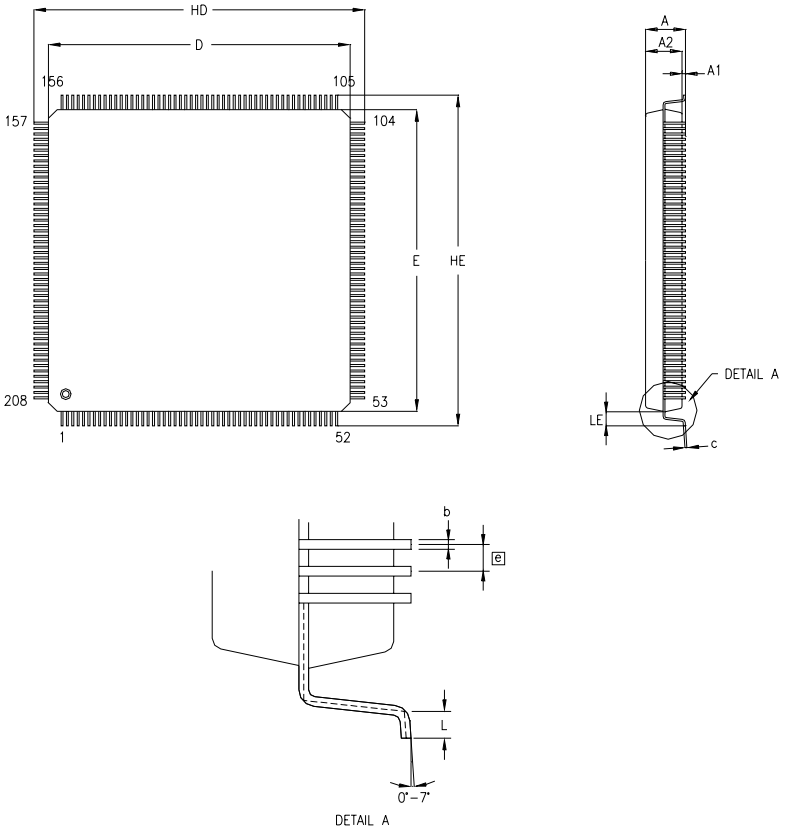
Figure 29. 144-Lead Plastic Quad Flat Package



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	–	4.07	–	0.160
A1	0.25	–	0.010	–
A2	3.17	3.67	0.125	0.144
b	0.23	0.38	0.009	0.015
c	0.13	0.23	.005	.009
HD	30.95	31.45	1.219	1.238
D	27.90	28.10	1.098	1.106
HE	30.95	31.45	1.219	1.238
E	27.90	28.10	1.098	1.106
e	0.65 BSC		.0256 BSC	
L	0.65	0.95	0.026	0.037
LE	1.60 REF		0.063	

1. CONTROLLING DIMENSIONS : mm
2. MAX. COPLANARITY : 10mm / 0.004"

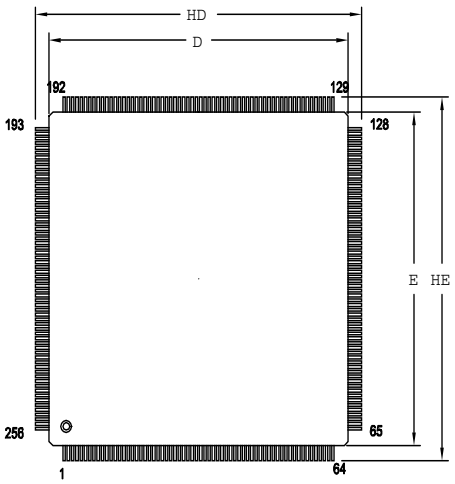
Figure 30. 160-Lead Plastic Quad Flat Package

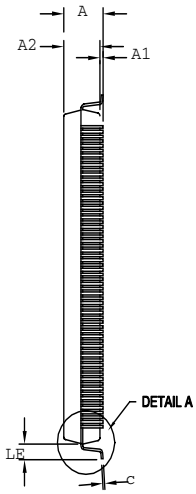


SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	3.42	4.07	.135	.160
A1	0.25	–	.010	–
A2	3.17	3.67	.125	.144
b	0.18	0.28	.007	.011
c	0.13	0.23	.005	.009
HD	30.35	30.85	1.194	1.214
D	27.90	28.10	1.098	1.106
HE	30.35	30.85	1.194	1.214
E	27.90	28.10	1.098	1.106
e	0.50 BSC		.020 BSC	
L	0.40	0.65	.016	.026
LE	1.30 REF		.051 REF	

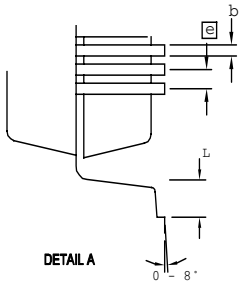
CONTROLLING DIMENSIONS : MM
MAX COPLANARITY : .10mm / .004"

Figure 31. 208-Lead Plastic Quad Flat Package





SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	-	4.07	-	0.160
A1	0.25	0.50	0.010	0.020
A2	3.20	3.60	0.126	0.142
b	0.13	0.23	0.005	0.009
c	0.09	0.20	0.004	0.008
HD	30.35	30.85	1.195	1.215
D	27.90	28.10	1.098	1.106
HE	30.35	30.85	1.195	1.215
E	27.90	28.10	1.098	1.106
e	0.40 BSC		0.016 BSC	
L	0.45	0.75	0.018	0.030
LE	1.30 REF		.051 REF	



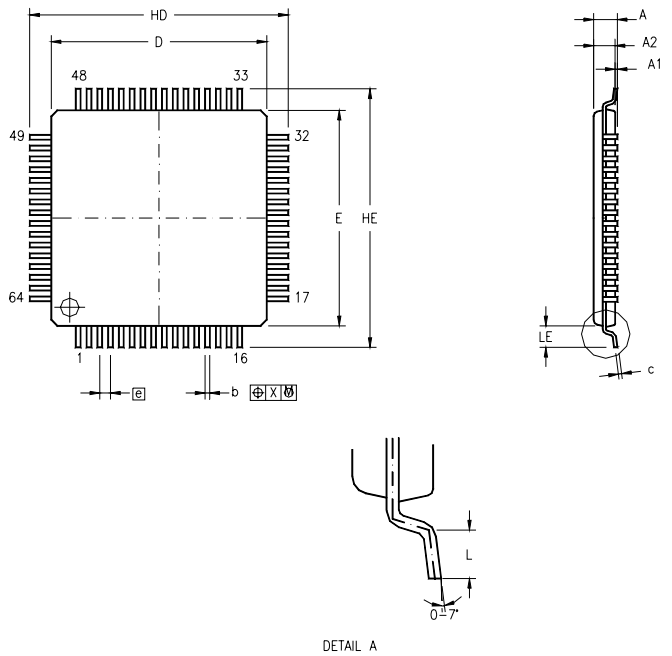
CONTROLLING DIMS: MM

MAX COPLANARITY: 10 mm
.004"

Figure 32. 256-Lead Plastic Quad Flat Package

Thin Quad Flat Packages (QFPs)

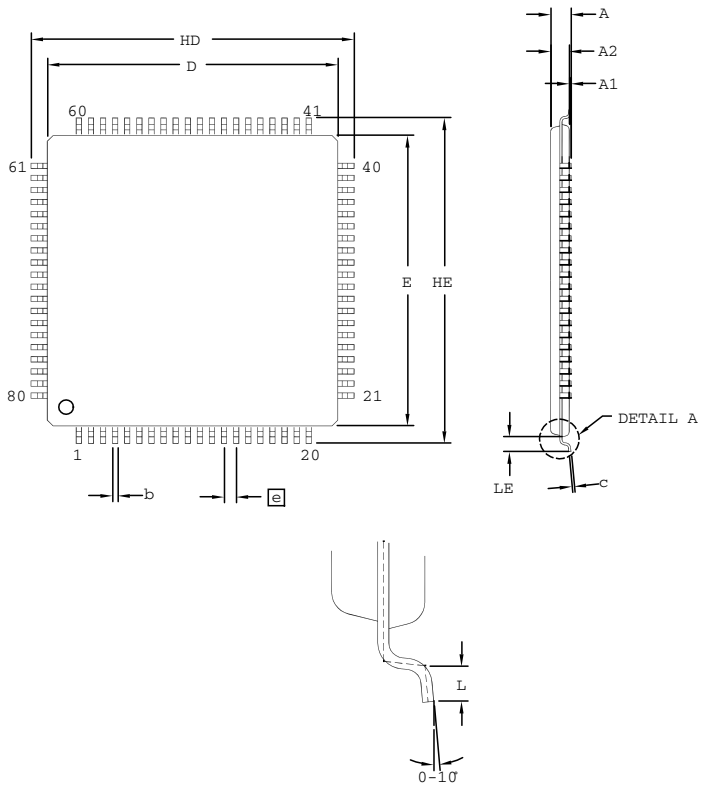
ZiLOG offers 64-lead (Figure 33) and 80-lead (Figure 34 on page 38) TQFPs.



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	1.00	1.20	0.039	0.047
A1	0.05	0.15	0.002	0.006
A2	0.95	1.05	0.037	0.041
b	0.17	0.27	0.007	0.011
c	0.09	0.20	0.004	0.008
HD	11.80	12.20	0.465	0.480
D	9.90	10.10	0.390	0.398
HE	11.80	12.20	0.465	0.480
E	9.90	10.10	0.390	0.398
e	0.50 BSC		0.0197 BSC	
L	0.45	0.75	0.018	0.030
LE	1.00 REF		0.039 REF	
X	–	0.13	–	0.005

1. CONTROLLING DIMENSIONS : mm
2. MAX. COPLANARITY : .10mm / 0.004"

Figure 33. 64-Lead Thin Quad Flat Package



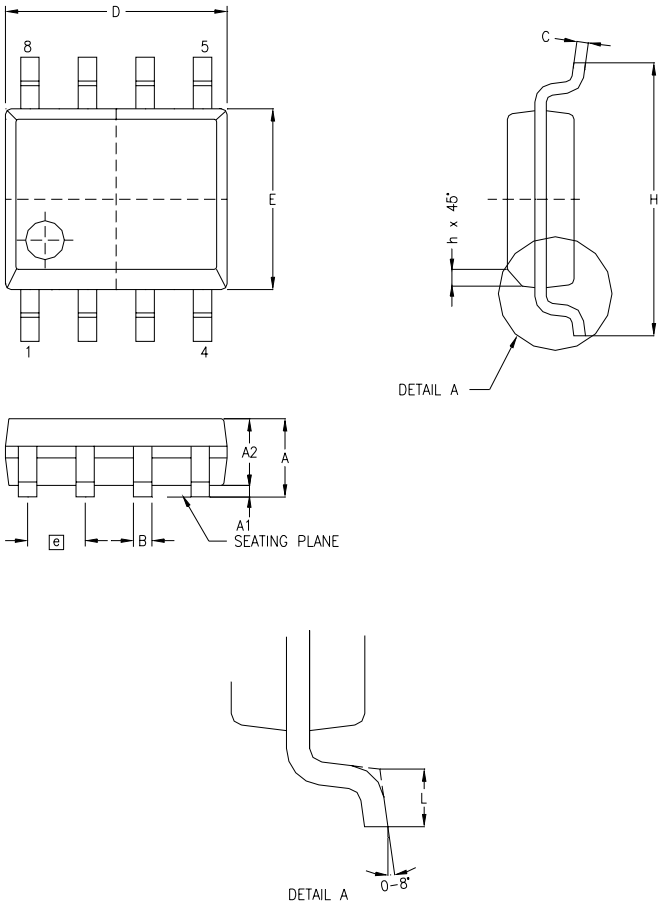
SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	-	1.20	-	0.047
A1	0.05	0.15	0.002	0.006
A2	0.95	1.05	0.037	0.041
b	0.17	0.27	0.007	0.011
c	0.12	0.20	0.005	0.008
HD	13.80	14.20	0.543	0.559
D	11.90	12.10	0.469	0.476
HE	13.80	14.20	0.543	0.559
E	11.90	12.10	0.469	0.47
e	0.50 BSC		0.020 BSC	
L	0.45	0.75	0.018	0.030
LE	1.00 REF		0.039 REF	

1. CONTROLLING DIMENSIONS : mm
2. MAX. COPLANARITY : .10mm (0.004")

Figure 34. 80-Lead Thin Quad Flat Package

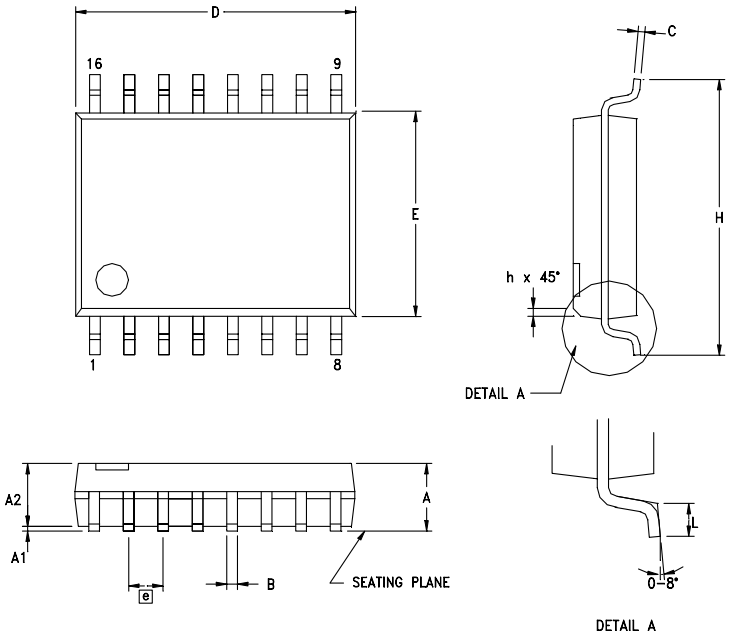
Small Outline Integrated Circuits (SOICs)

ZiLOG offers 8-lead (Figure 35), 16-lead (Figure 36 on page 40), 18-lead (Figure 37 on page 41), 20-lead (Figure 38 on page 42), and 28-lead (Figure 39 on page 43) SOICs.



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	1.55	1.73	0.061	0.068
A1	0.10	0.25	0.004	0.010
A2	1.40	1.55	0.055	0.061
B	0.36	0.48	0.014	0.019
C	0.18	0.25	0.007	0.010
D	4.80	4.98	0.189	0.196
E	3.81	3.99	0.150	0.157
e	1.27 BSC		.050 BSC	
H	5.84	6.15	0.230	0.242
h	0.25	0.40	0.010	0.016
L	0.46	0.81	0.018	0.032

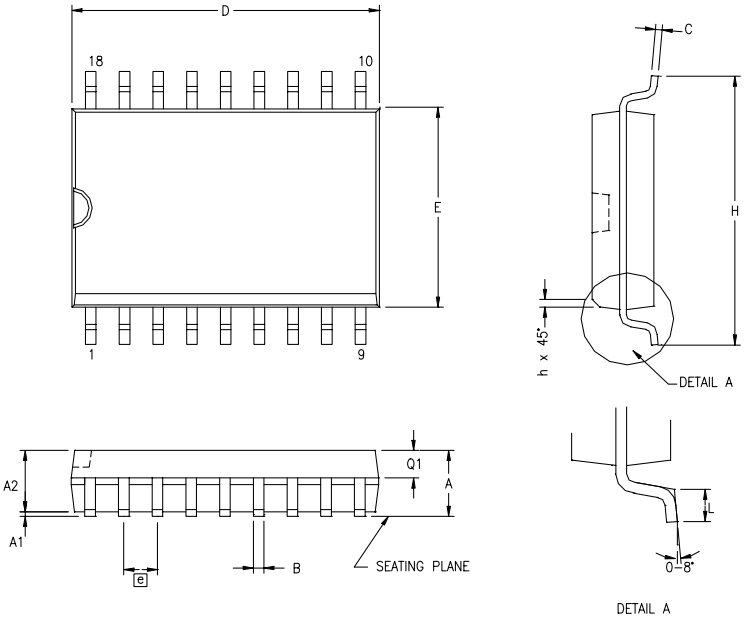
Figure 35. 8-Lead Small Outline Integrated Circuit



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	2.35	2.65	0.093	0.104
A1	0.10	0.30	0.004	0.012
A2	2.24	2.44	0.088	0.096
B	0.33	0.51	0.013	0.020
C	0.23	0.32	0.009	0.013
D	10.10	10.50	0.398	0.413
E	7.40	7.60	0.291	0.299
e	1.27 BSC		0.050 BSC	
H	10.00	10.65	0.394	0.419
h	0.25	0.75	0.010	0.030
L	0.40	1.27	0.016	0.050

CONTROLLING DIMENSIONS : MM
LEADS ARE COPLANAR WITHIN .004 INCH.

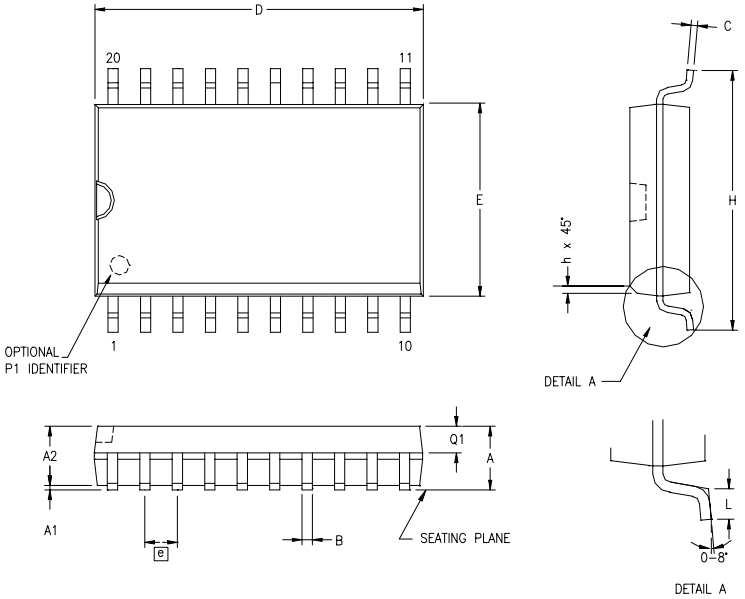
Figure 36. 16-Lead Small Outline Integrated Circuit



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	2.40	2.65	0.094	0.104
A1	0.10	0.30	0.004	0.012
A2	2.24	2.44	0.088	0.096
B	0.36	0.46	0.014	0.018
C	0.23	0.30	0.009	0.012
D	11.40	11.75	0.449	0.463
E	7.40	7.60	0.291	0.299
e	1.27 BSC		0.050 BSC	
H	10.00	10.65	0.394	0.419
h	0.30	0.50	0.012	0.020
L	0.60	1.00	0.024	0.039
Q1	0.97	1.07	0.038	0.042

CONTROLLING DIMENSIONS : MM
LEADS ARE COPLANAR WITHIN .004 INCH.

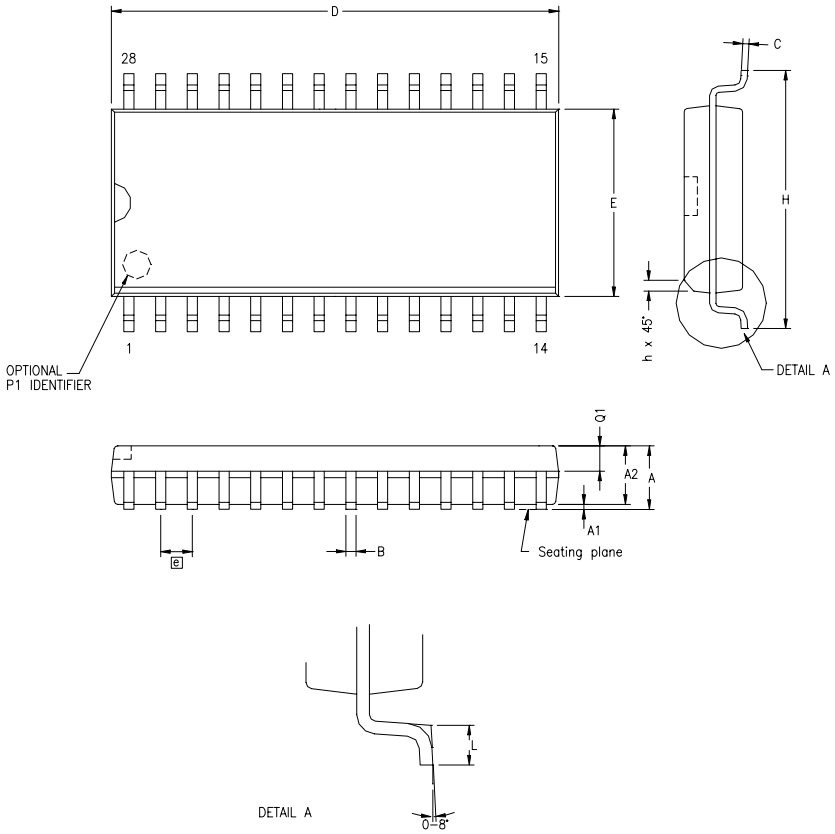
Figure 37. 18-Lead Small Outline Integrated Circuit



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	2.40	2.65	.094	.104
A1	0.10	0.30	.004	.012
A2	2.24	2.44	.088	.096
B	0.36	0.46	.014	.018
C	0.23	0.30	.009	.012
D	12.60	12.95	**.496**	.510
E	7.40	7.60	.291	.299
e	1.27 BSC		.050 BSC	
H	10.00	10.65	.394	.419
h	0.30	0.40	.012	.016
L	0.60	1.00	.024	.039
Q1	0.97	1.07	.038	.042

CONTROLLING DIMENSIONS : MM
LEADS ARE COPLANAR WITHIN .004 INCH.

Figure 38. 20-Lead Small Outline Integrated Circuit



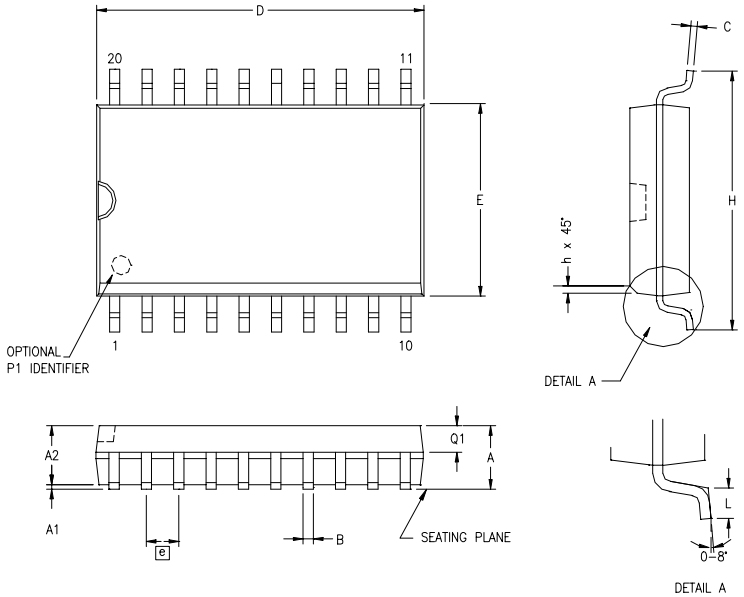
SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	2.40	2.64	.094	.104
A1	0.10	0.30	.004	.012
A2	2.24	2.44	.088	.096
B	0.36	0.46	.014	.018
C	0.23	0.30	.009	.012
D	17.78	18.00	.700	.710
E	7.40	7.60	.291	.299
e	1.27 BSC		.050 BSC	
H	10.00	10.65	.394	.419
h	0.30	0.71	.012	.028
L	0.61	1.00	.024	.039
Q1	0.97	1.09	.038	.043

CONTROLLING DIMENSIONS : MM
LEADS ARE COPLANAR WITHIN .004 INCH.

Figure 39. 28-Lead Small Outline Integrated Circuit

Shrink Small Outline Packages (SSOPs)

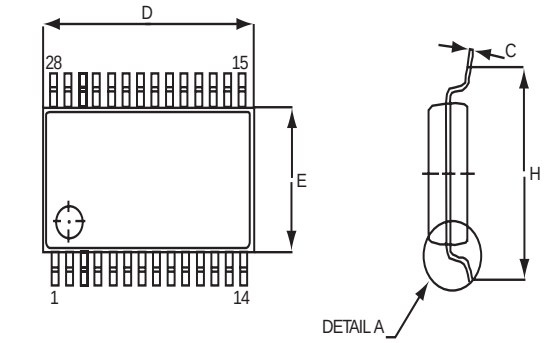
ZiLOG offers 20-lead (Figure 40), 28-lead (Figure 41 on page 45), and 48-lead (Figure 42 on page 46) SSOPs.



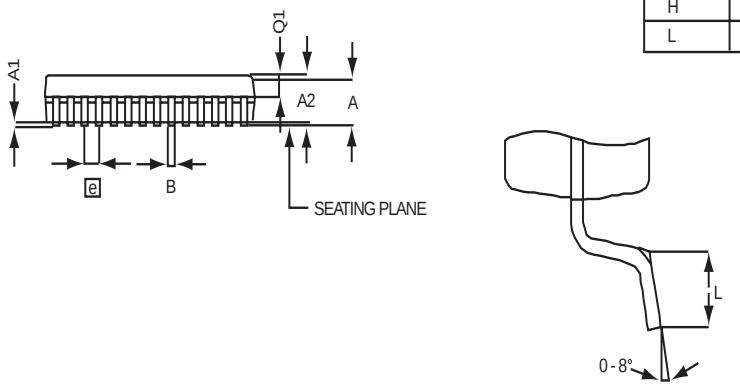
SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	2.40	2.65	.094	.104
A1	0.10	0.30	.004	.012
A2	2.24	2.44	.088	.096
B	0.36	0.46	.014	.018
C	0.23	0.30	.009	.012
D	12.60	12.95	**.496**	.510
E	7.40	7.60	.291	.299
e	1.27 BSC		.050 BSC	
H	10.00	10.65	.394	.419
h	0.30	0.40	.012	.016
L	0.60	1.00	.024	.039
Q1	0.97	1.07	.038	.042

CONTROLLING DIMENSIONS : MM
LEADS ARE COPLANAR WITHIN .004 INCH.

Figure 40. 20-Lead Shrink Small Outline Package

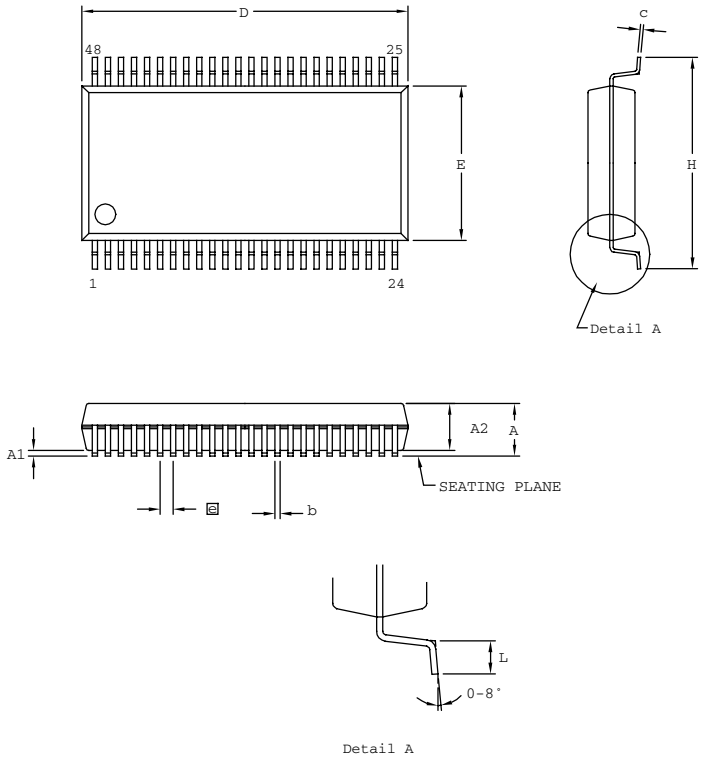


SYMBOL	MILLIMETER			INCH		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.73	1.86	1.99	0.068	0.073	0.078
A1	0.05	0.13	0.21	0.002	0.005	0.008
A2	1.68	1.73	1.78	0.066	0.068	0.070
B	0.25		0.38	0.010		0.015
C	0.09	–	0.20	0.004	0.006	0.008
D	10.07	10.20	10.33	0.397	0.402	0.407
E	5.20	5.30	5.38	0.205	0.209	0.212
e	0.65 TYP			0.0256 TYP		
H	7.65	7.80	7.90	0.301	0.307	0.311
L	0.63	0.75	0.95	0.025	0.030	0.037



CONTROLLING DIMENSIONS: MM
LEADS ARE COPLANAR WITHIN .004 INCHES.

Figure 41. 28-Lead Shrink Small Outline Package



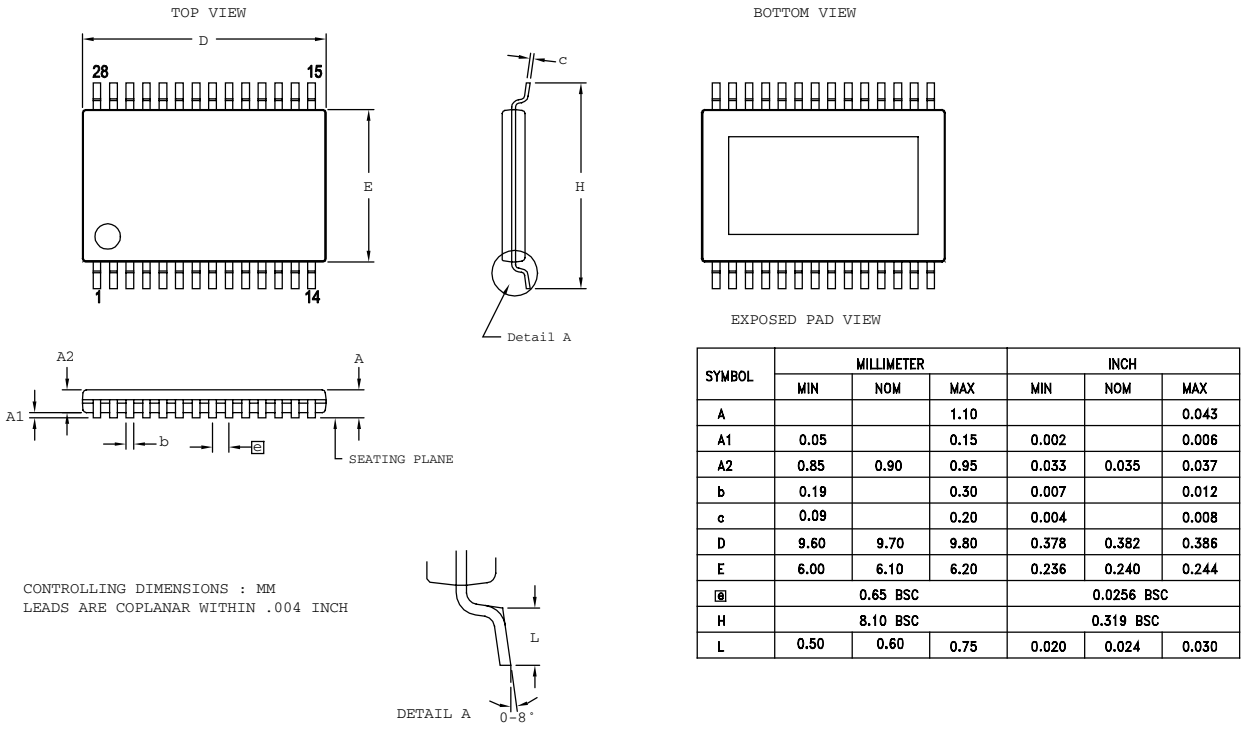
SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	2.41	2.79	0.095	0.110
A1	0.23	0.38	0.009	0.015
A2	2.18	2.39	0.086	0.094
b	0.20	0.34	0.008	0.0135
c	0.13	0.25	0.005	0.010
D	15.75	16.00	0.620	0.630
E	7.39	7.59	0.291	0.299
e	0.635 BSC		0.025 BSC	
H	10.16	10.41	0.400	0.410
L	0.51	1.016	0.020	0.040

CONTROLLING DIMENSIONS : MM
LEADS ARE COPLANAR WITHIN .004 INCH

Figure 42. 48-Lead Shrink Small Outline Package

Exposed-Pad Thin Shrink Small Outline Package (EPTSSOP)

ZiLOG offers a 28-lead EPTSSOP (Figure 43).



SYMBOL	MILLIMETER			INCH		
	MIN	NOM	MAX	MIN	NOM	MAX
A			1.10			0.043
A1	0.05		0.15	0.002		0.006
A2	0.85	0.90	0.95	0.033	0.035	0.037
b	0.19		0.30	0.007		0.012
c	0.09		0.20	0.004		0.008
D	9.60	9.70	9.80	0.378	0.382	0.386
E	6.00	6.10	6.20	0.236	0.240	0.244
e	0.65 BSC			0.0256 BSC		
H	8.10 BSC			0.319 BSC		
L	0.50	0.60	0.75	0.020	0.024	0.030

Figure 43. 28-Lead Exposed-Pad Thin Shrink Small Outline Package

Plastic Ball Grid Array

ZiLOG offers a 256-lead plastic ball grid array package (Figure 44).

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

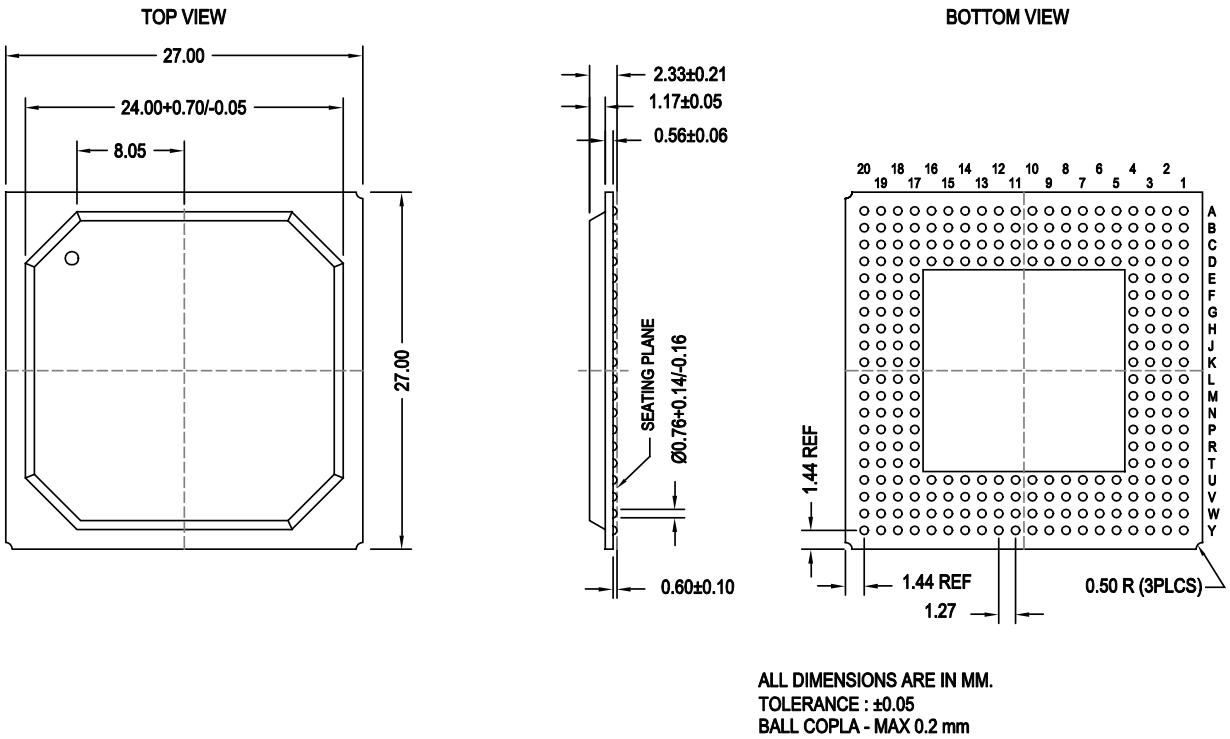


Figure 44. 256-Lead Plastic Ball Grid Array

Ceramic Sidebrazed Dual In-Line Packages

ZiLOG offers 18-lead (Figure 45), 28-lead (Figure 46 on page 50), 40-lead (Figure 47 on page 51), 48-lead (Figure 48 on page 52), and 64-lead (Figure 49 on page 53) ceramic sidebrazed dual in-line packages.

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

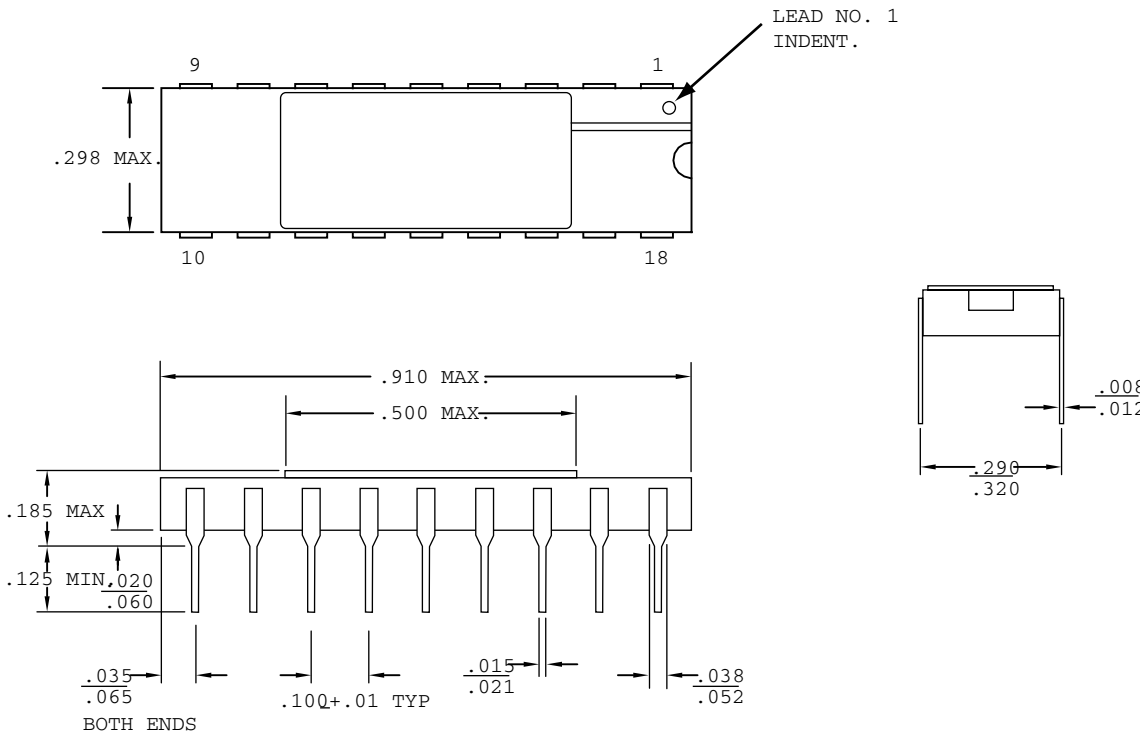


Figure 45. 18-Lead Ceramic Sidebrazed Dual In-Line Package

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

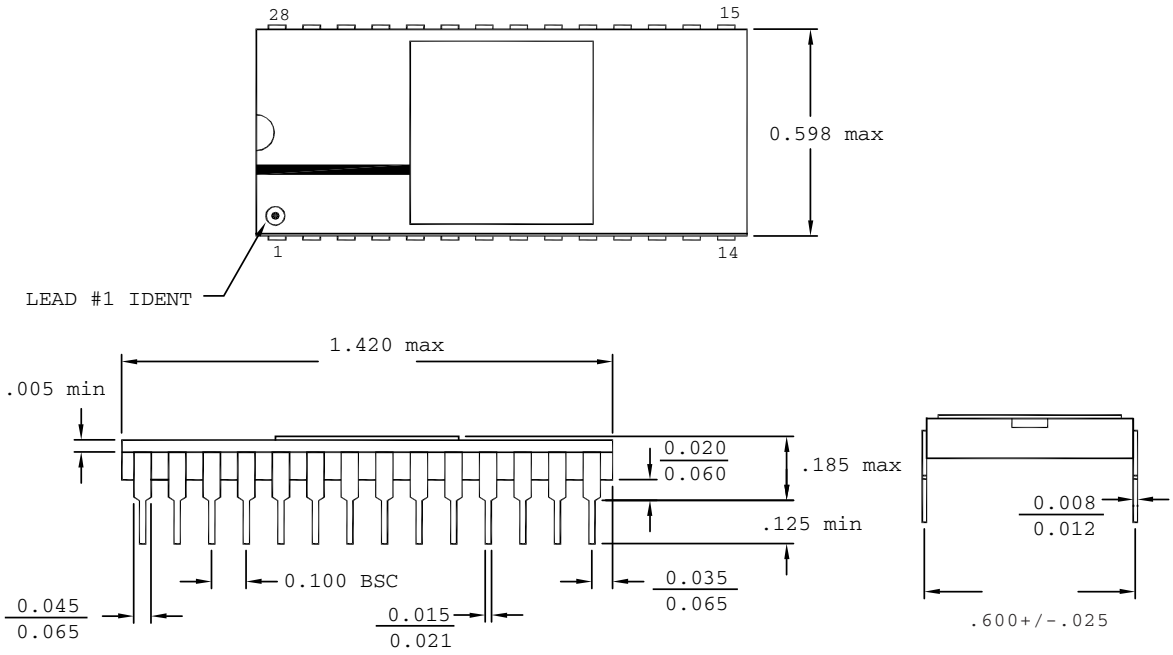


Figure 46. 28-Lead Ceramic Sidebrazed Dual In-Line Package

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

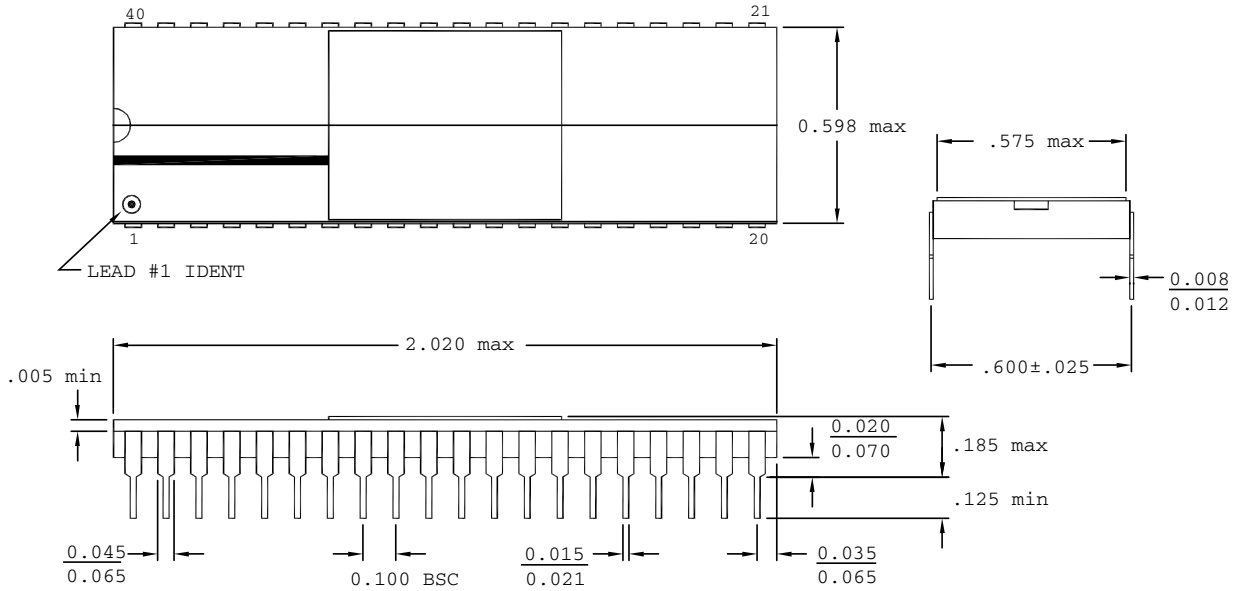


Figure 47. 40-Lead Ceramic Sidebrazed Dual In-Line Package

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

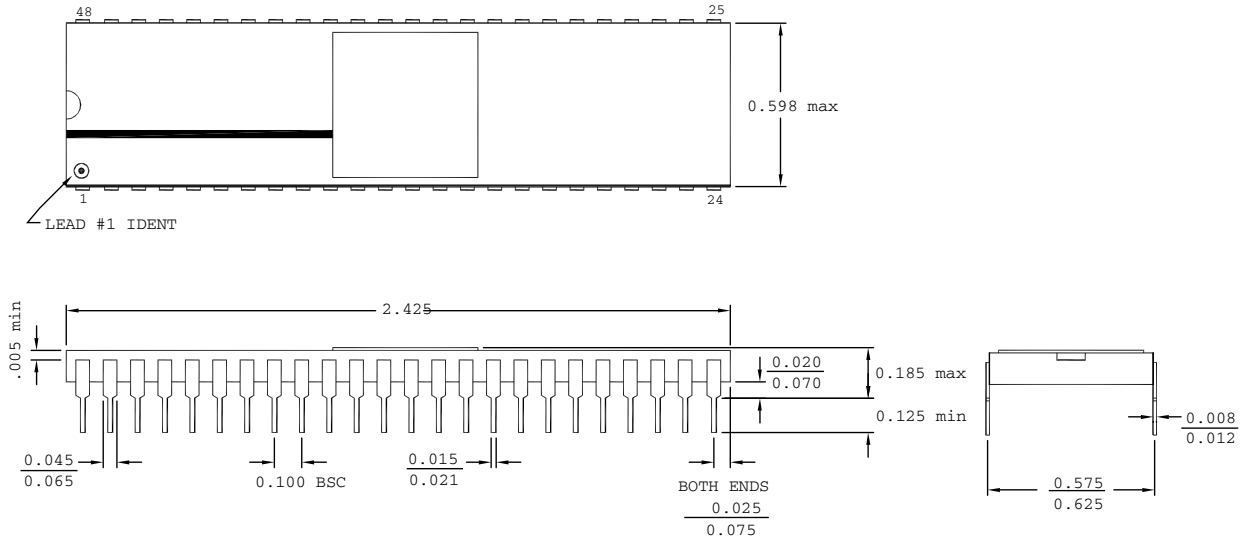


Figure 48. 48-Lead Ceramic Sidebrazed Dual In-Line Package

1.	Mark Permanency	3X soak into trichlorethane 1.1.1 1 minute duration each soak Mech. brush after each soak
2.	Hermeticity	5 X 10E-8 CC/SEC MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

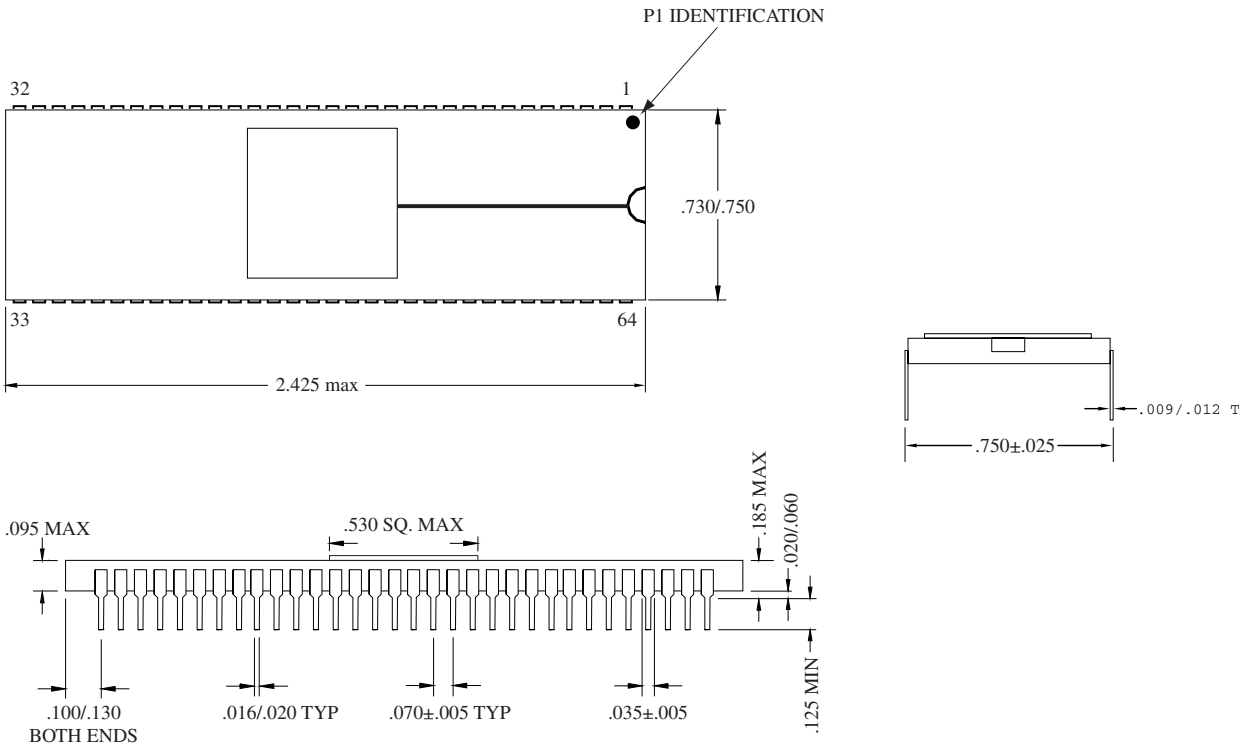


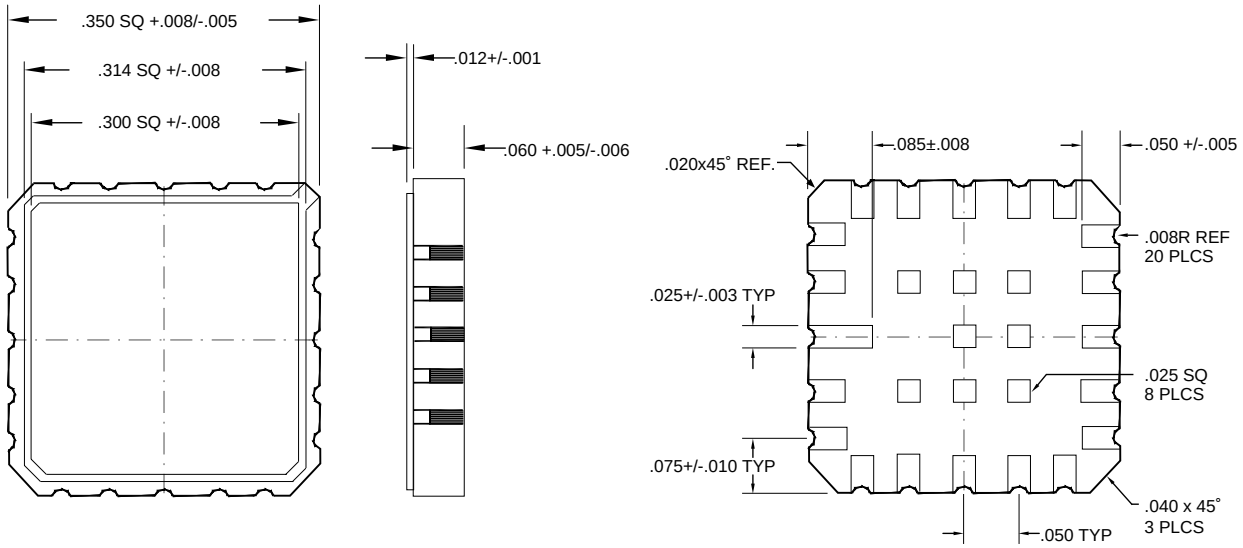
Figure 49. 64-Lead Ceramic Sidebrazed Dual In-Line Package with 0.070" Lead Centers

Ceramic Leadless Chip Carriers (LCCs)

ZiLOG offers 20-lead (Figure 50), 44-lead (Figure 51 on page 55), and 52-lead (Figure 52 on page 56) LCCs.

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.



NOTE: THE THERMAL GRID PATTERN IS CONNECTED TO LEAD #7.

Figure 50. 20-Lead Ceramic Leadless Chip Carrier

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

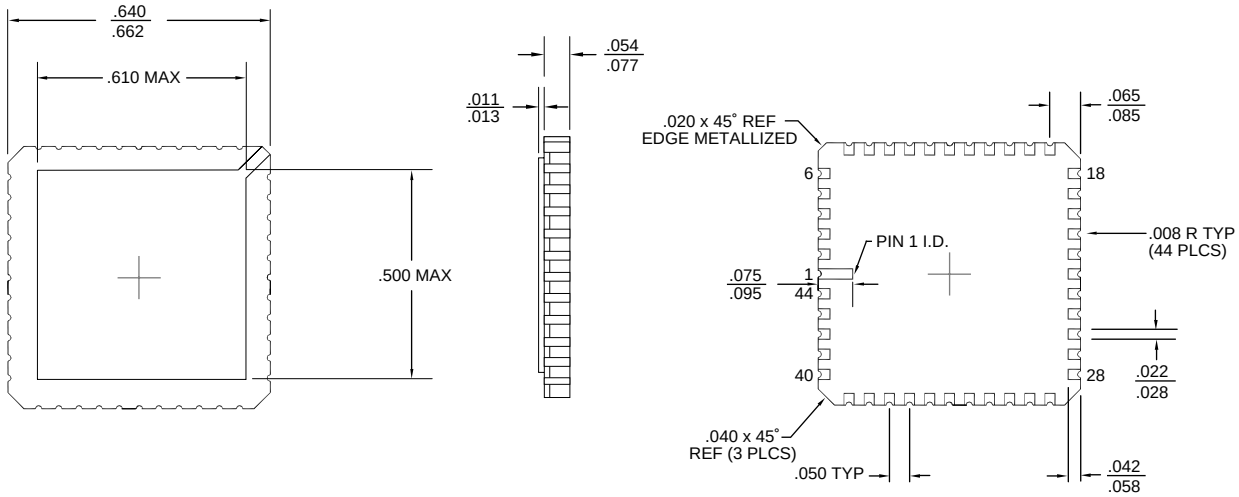


Figure 51. 44-Lead Ceramic Leadless Chip Carrier

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

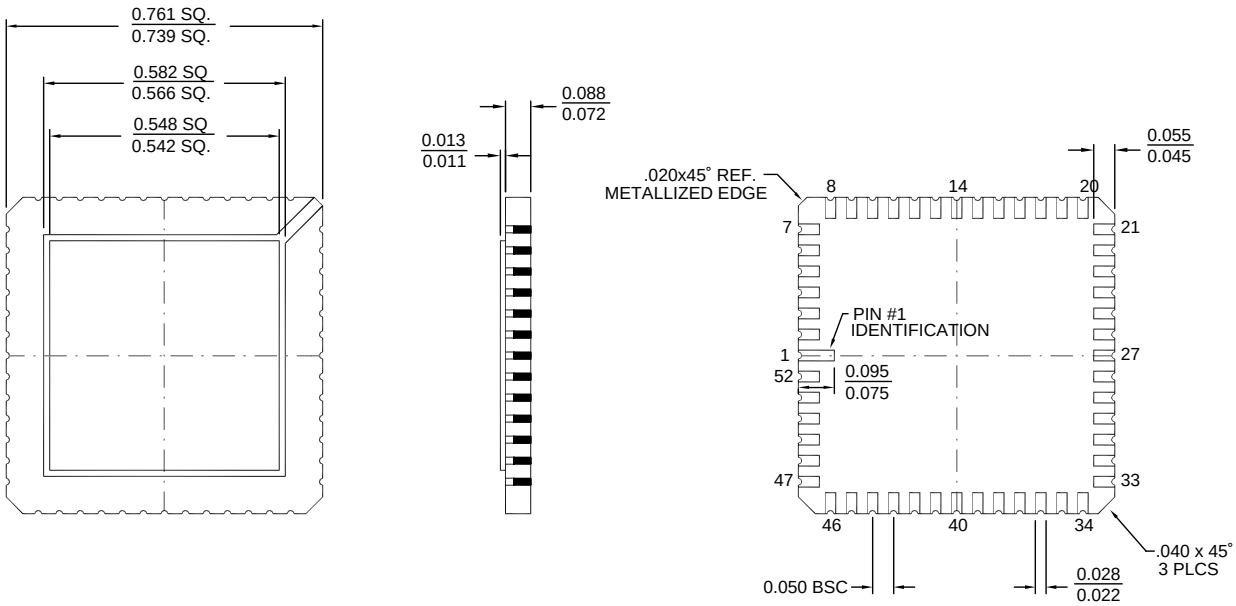


Figure 52. 52-Lead Ceramic Leadless Chip Carrier

Cerdips

ZiLOG offers 28-lead (Figure 53) and 40-lead (Figure 54 on page 58) cerdips.

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

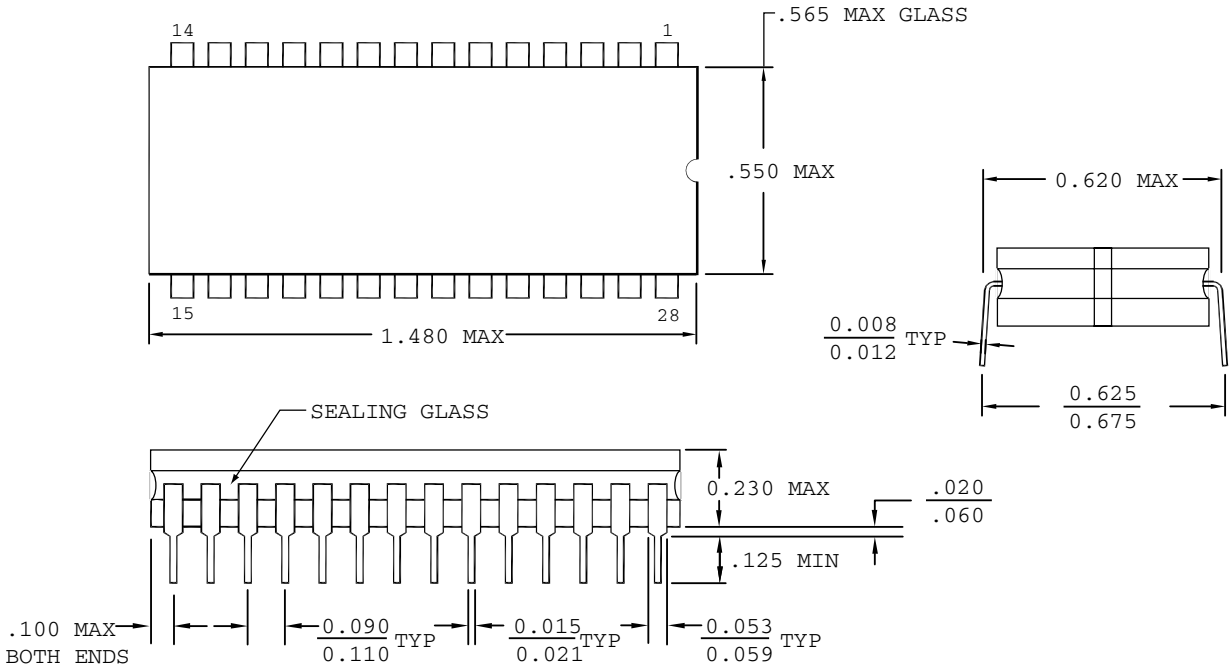


Figure 53. 28-Lead Cerdip Dual In-Line Package

1.	Mark Permanency	3X soak into trichlorethane 1.1.1 1 minute duration each soak Mech. brush after each soak
2.	Hermeticity	5 X 10E-8 CC/SEC MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

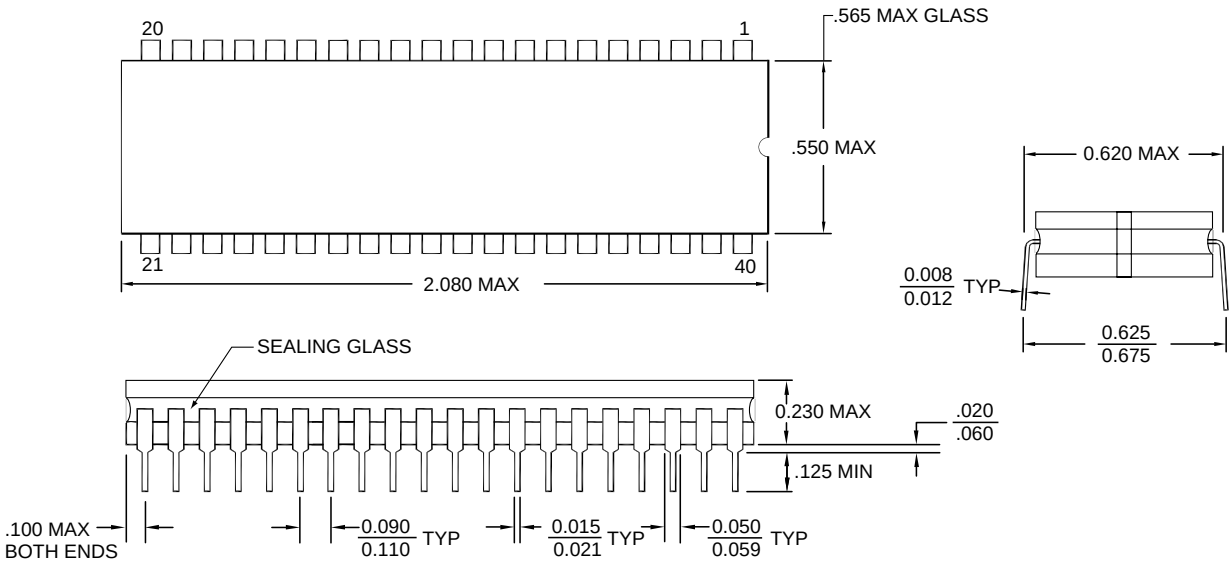


Figure 54. 40-Lead Cerdip Dual In-Line Package

Cerdip Window (KZ) Lid Packages

ZiLOG offers 28-lead (Figure 55) and 40-lead (Figure 56 on page 60) cerdip window lid packages.

1.	Mark Permanency	3X soak into trichlorethane 1.1.1 1 minute duration each soak Mech. brush after each soak
2.	Hermeticity	5 X 10E-8 CC/SEC MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

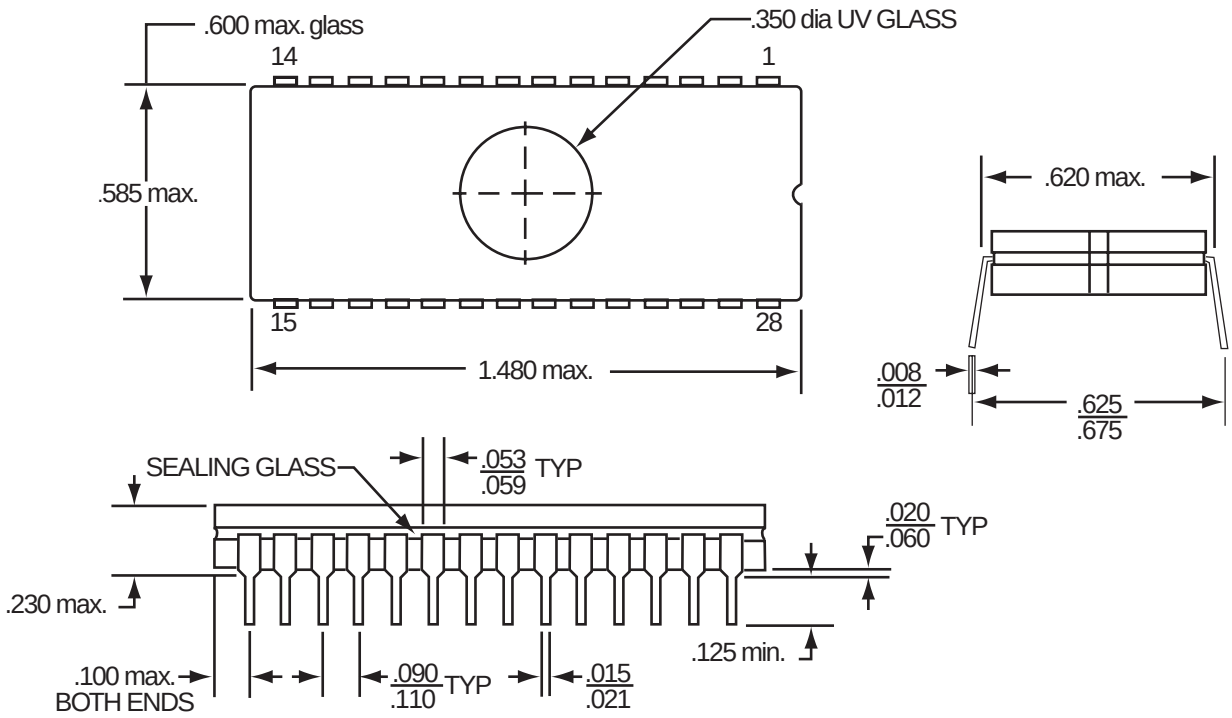


Figure 55. 28-Lead Cerdip Window Lid Package

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

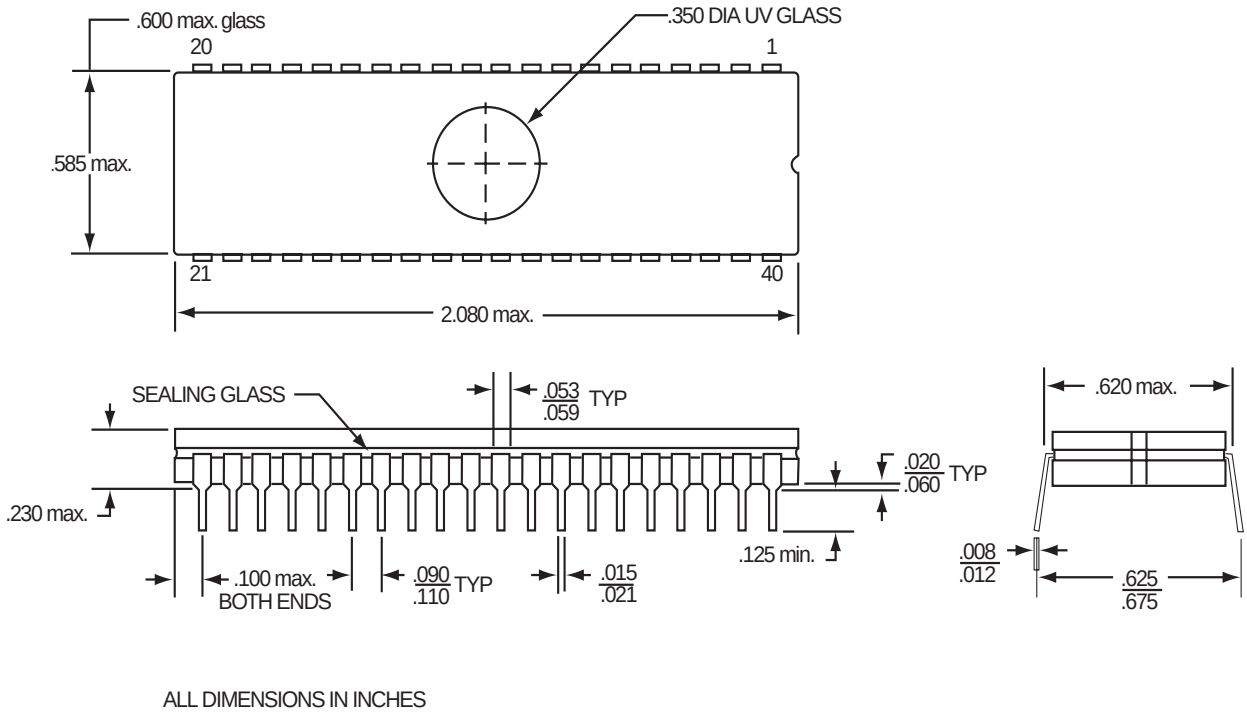


Figure 56. 40-Lead Cerdip Window Lid Package

Ceramic Pin Grid Array (PGA) Packages

ZiLOG offers 68-lead (Figure 57), 84-lead (Figure 58 on page 62 and Figure 59 on page 63), 124-lead (Figure 60 on page 64), and 144/145-lead (Figure 61 on page 65) ceramic PGA packages.

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

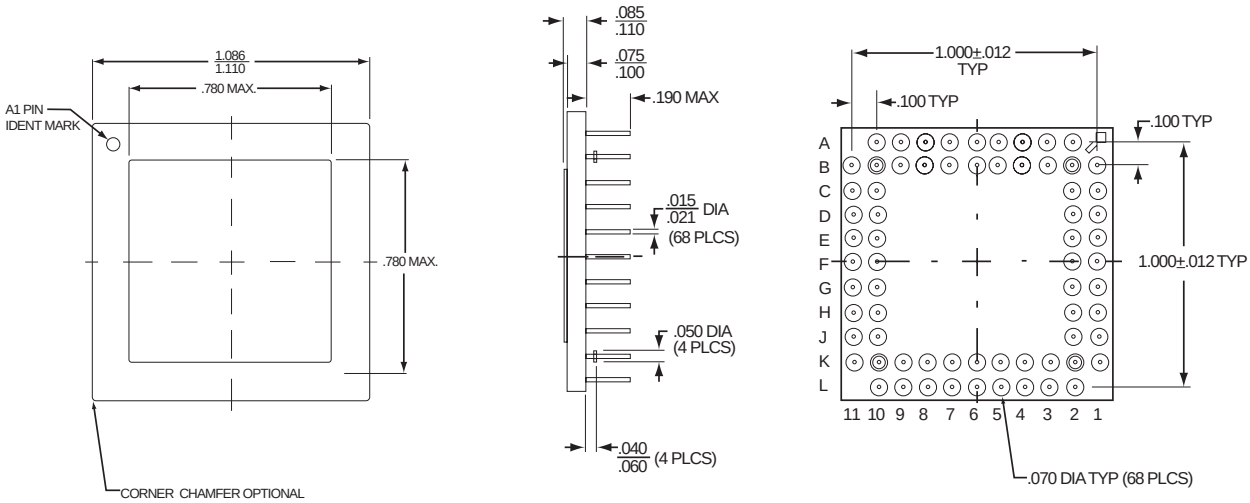


Figure 57. 68-Lead Ceramic Pin Grid Array

1.	Mark Permanency	3X soak into trichlorethane 1.1.1 1 minute duration each soak Mech. brush after each soak
2.	Hermeticity	5 X 10E-8 CC/SEC MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

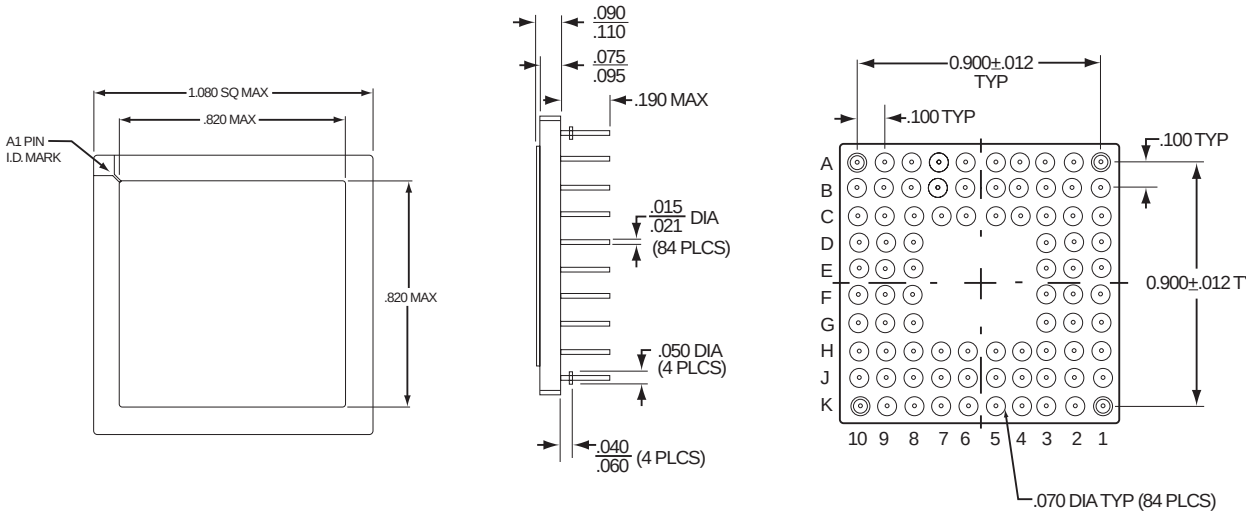


Figure 58. 84-Lead Ceramic Pin Grid Array (10 x 10)

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

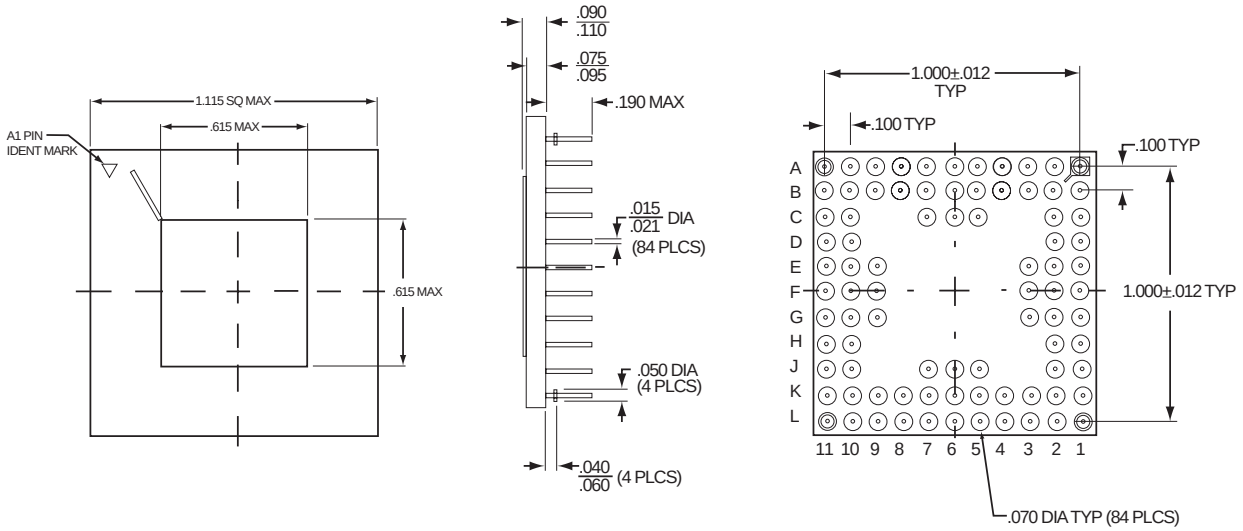


Figure 59. 84-Lead Ceramic Pin Grid Array (11 x 11)

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

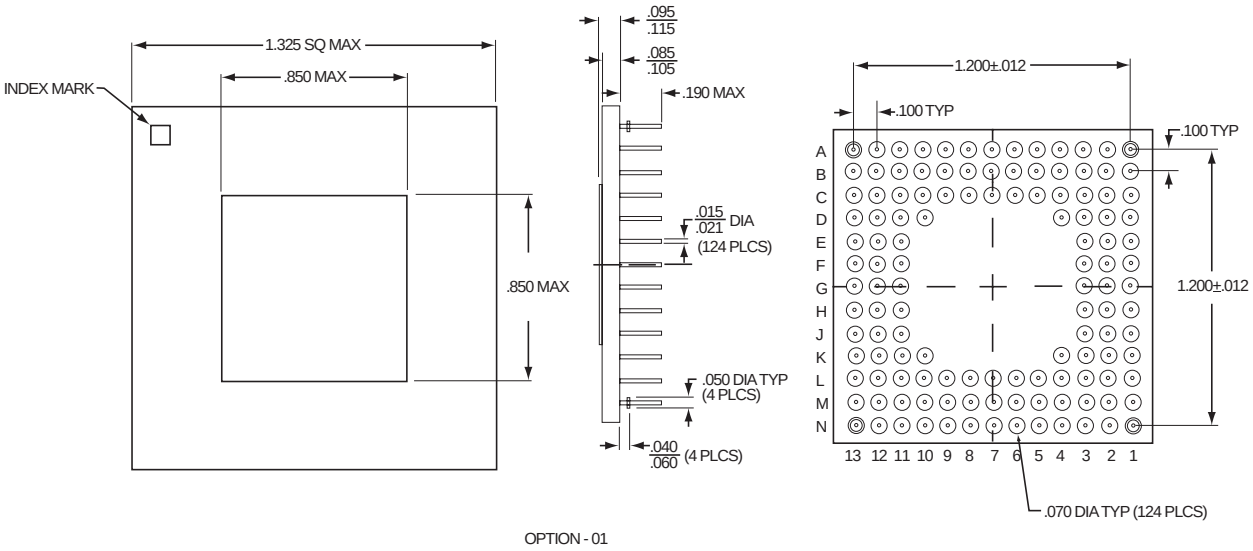


Figure 60. 124-Lead Ceramic Pin Grid Array

1. Mark Permanency — 3X soak into trichlorethane 1.1.1
   1 minute duration each soak
   Mech. brush after each soak
2. Hermeticity — 5 X 10E-8 CC/SEC
   MIL-STD-883C Method 1014.8 Condition B

Note: The package dimensions are given in inches. To convert inches to millimeters, multiply the dimension by 25.4.

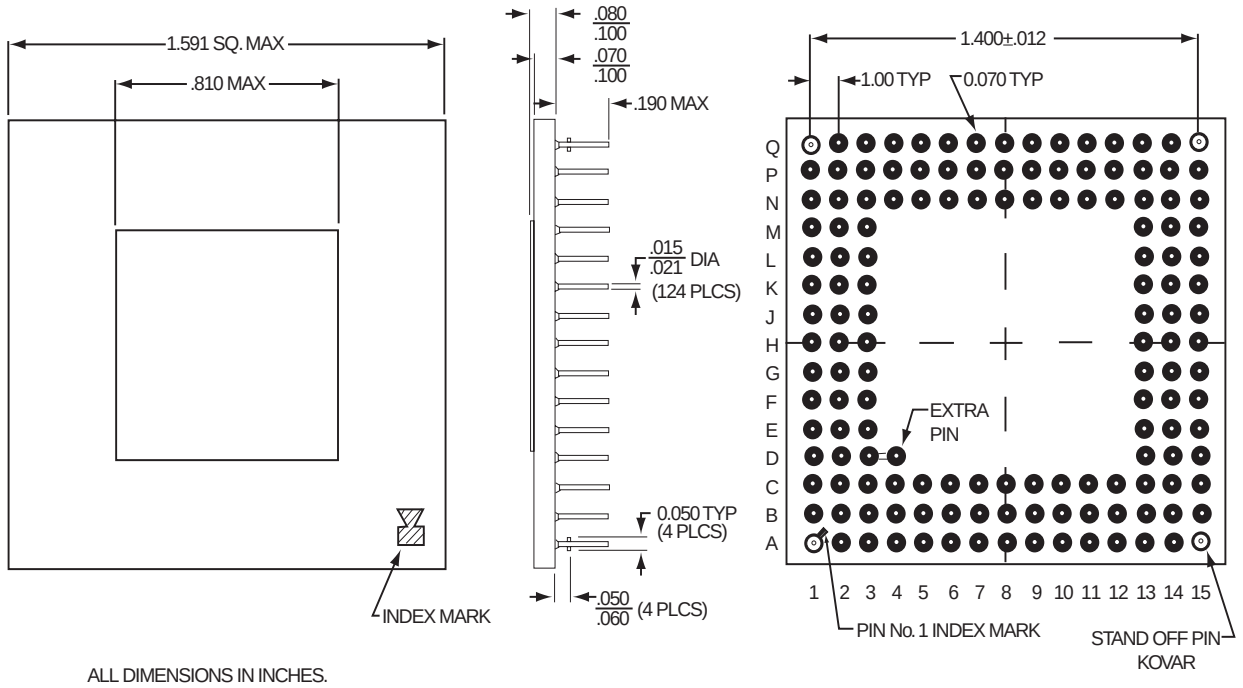


Figure 61. 144/145-Lead Ceramic Pin Grid Array

Ceramic Leaded Chip Carrier

ZiLOG offers an 84-lead ceramic leaded chip carrier package (Figure 62).

1. Coplanarity Maximum 4 mils deviation

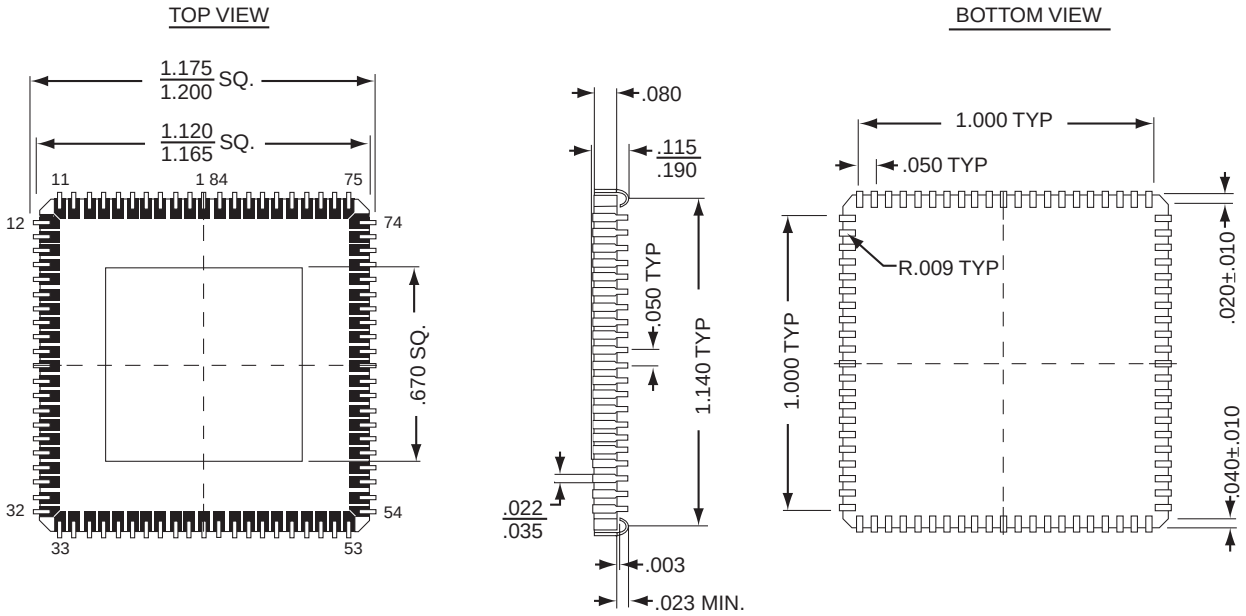
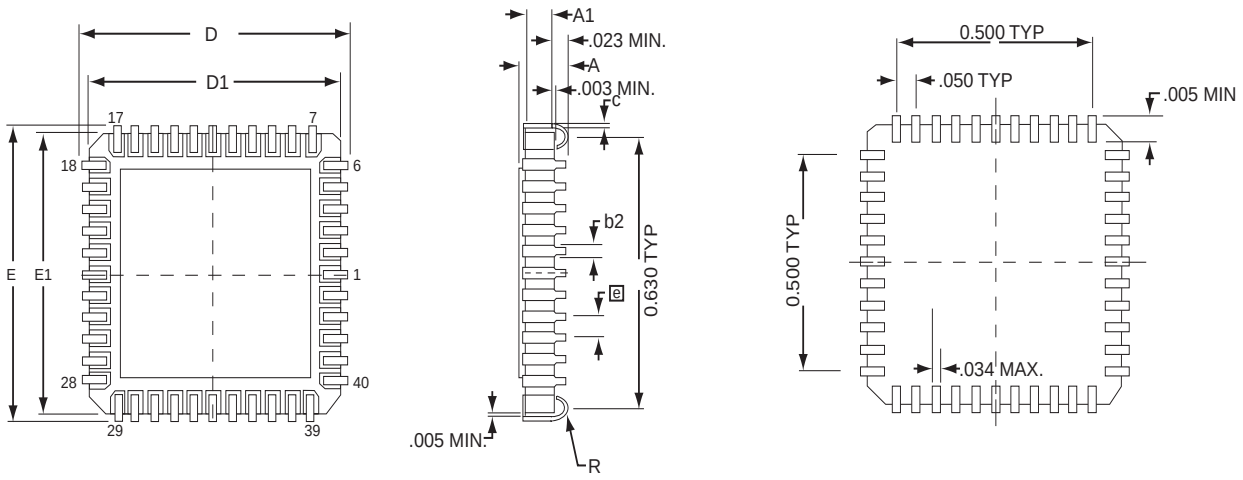


Figure 62. 84-Lead Ceramic Leaded Chip Carrier

J-Shaped Chip Carrier

ZiLOG offers a 44-lead J-shaped chip carrier package (Figure 63).

1. Coplanarity Maximum 4 mils deviation



SYMBOL	MILLIMETER		INCH	
	MIN	MAX	MIN	MAX
A	2.92	4.57	0.115	0.190
A1	1.65 TYP		.065 TYP	
b2	0.56	0.89	0.022	0.035
c	0.18	0.33	0.007	0.013
D/E	17.15	17.78	0.675	0.700
D1/E1	15.75	16.76	0.620	0.660
R	0.51	1.02	0.020	0.040
e	1.27 TYP		0.050 TYP	

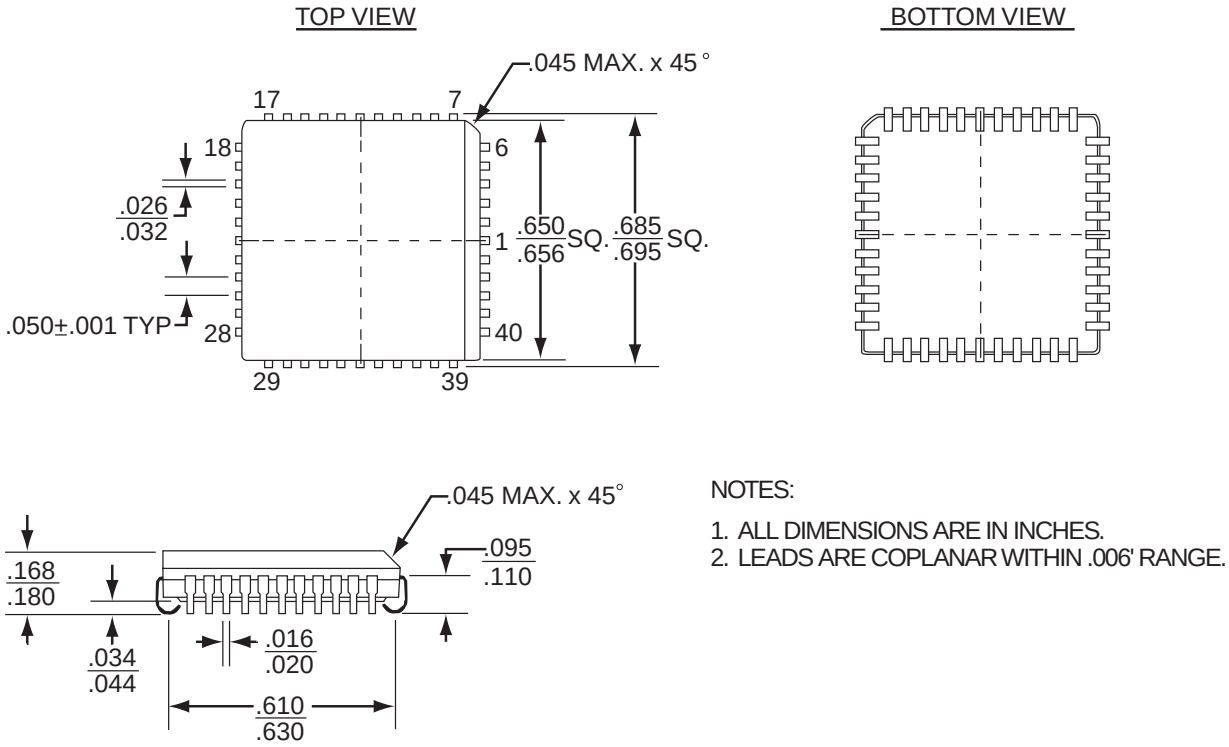
NOTES:

1. CONTROLLING DIMENSION: INCH
3. DIMENSION: MM / INCH

Figure 63. 44-Lead J-Shaped Chip Carrier

Cerquad

ZiLOG offers a 44-lead cerquad package (Figure 64).



NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. LEADS ARE COPLANAR WITHIN .006' RANGE.

Figure 64. 44-Lead Cerquad

Document Information

Document Number Description

The Document Control Number that appears in the footer of each page of this document contains unique identifying attributes, as indicated in the following table:

PS	Product Specification
NNNN	Unique Document Number
RR	Revision Number
MMYY	Month and Year Published

Change Log

The following change notices have been incorporated into this document:

Date	Control Number	Drawing Number
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8/24/00	51671	MKT71C1188-00
8/24/00	51989	MKT71C1190-00
8/24/00	51672	MKT71C1189-00
10/25/00	52592	MKT71C1187-00
10/25/00	52667	MKT71C1153-00
12/5/00	52855	MKT71C1191-00
1/26/01	52951	MKT71C1187-00
1/26/01	52958	MKT71C1159-00 MKT71C1167-00 MKT71C1173-00 MKT71C1176-00 MKT71C1182-00 MKT71C1186-00

Customer Feedback Form

If you note any inaccuracies while reading this product specification, please copy and complete this form, then mail or fax it to ZiLOG (see *Return Information*, below). We also welcome your suggestions!

Customer Information

Name	Country
Company	Phone
Address	Fax
City/State/Zip	email

Return Information

ZiLOG
System Test/Customer Support
910 E. Hamilton Avenue, Suite 110, MS 4–3
Campbell, CA 95008
Fax: (408) 558-8536
Email: tools@zilog.com

Problem Description or Suggestion

Provide a complete description of the problem or your suggestion. If you are reporting a specific problem, include all steps leading up to the occurrence of the problem. Attach additional pages as necessary.

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