REVISIONS					
REV.	ECO NO.	DESCRIPTION	CHECKED	APPROVED	DATE
A	36-160	INITIAL RELEASE	RFG	BK	3/22/95
B	36-169	Add RM2010 to page 4	FJK	RFG	4/15/95
C	36-186	Change Mongoose Pads page 11 Add RM2512 to page 4	FJK	RFG	5/2/95
D	36-384	Add Axial Parts	FJK	RFG	11/6/95
E	36-431	Added 16 & 20 Flat Pack, QT25	FJK	RFG	12/18/95
F	36-464	Added 36-02306	FJK	RFG	1/12/96
G	36-480	Added RM1010, M39016/29-060	FJK	RFG	2/6/96
H	36-498	Added PAGES 24-26	FJK	RFG	2/20/96
J	36-517	UPDATED CAPS, 10 FP & ACTEL	FJK	RFG	3/1/96
K	36-537	UPDATED TO-66 & ZENERS	FJK	RFG	3/15/96
L	36-555	ADDED CDR02 & CDR06	FJK	RFG	4/1/96
M	36-639	CHANGE PAD SPACING, P13	FJK	RFG	5/29/96
N	36-517	ADDED ACTEL SHIM, P 29	FJK	[signature]	11/29/96

A	A	A	A	A	A																		
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	
N	B	A	D	D	A	B	C	A	B	C	B	C	A	A	A	A	B	A	A	A	A	A	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

REVISION STATUS OF SHEETS

NAME	DATE
DRAWN F. Kasparian	3 MAR 95
CHECKED B. Klatt	3/22/95
APPROVED R. F. Goeke	3/22/95
RELEASED D. Gage	3/22/95
WEIGHT	

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CENTER FOR SPACE RESEARCH
CAMBRIDGE, MA 02139

PC DESIGN - COMPONENT LIBRARY

SIZE	FSCM NO.	DWG. NO.	REV.
A	80230	36-02106	N

SCALE NONE

NOTES:

1. THIS DOCUMENT SPECIFIES THE LAND DIMENSIONS AND LEAD FORMING OF SURFACE MOUNTED COMPONENTS; LEAD FORMING AND PART MOUNTING SPACING OF AXIAL LEADED COMPONENTS USED ON ACIS PRINTED CIRCUIT BOARDS.

2. TOLERANCES:
   .XXX = ±.002

3. THE BODY OF THE PART IS APPROXIMATELY CENTERED BETWEEN THE TERMINATIONS.

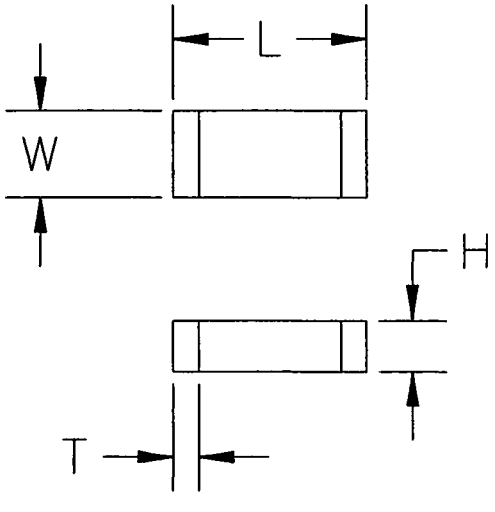
4. BEND RADII ARE 2–4 TIMES THE LEAD DIAMETER.

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	B
SCALE NONE			SHEET 2

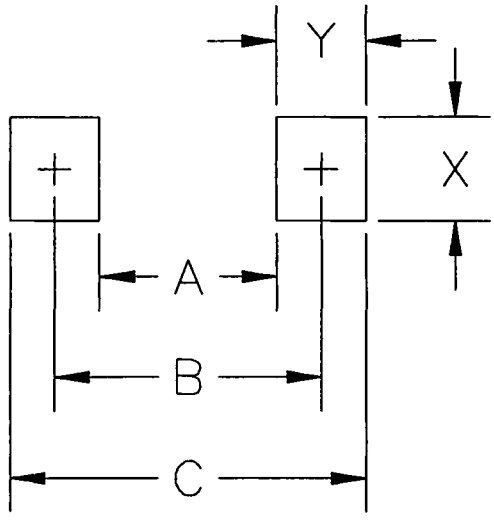
SMT CHIP COMPONENTS

W = Nominal Width of Component
H = Component Height (nominal or .050 max)
L = Nominal Lenght of Component
T = Maximum Solder Termination

X	= Land Width	W+.020
Y	= Land Length	H+T+.010
A	= Land Gap	L−2T−.010
B	= Center Line	A+Y
C	= Overall Length	A+2Y

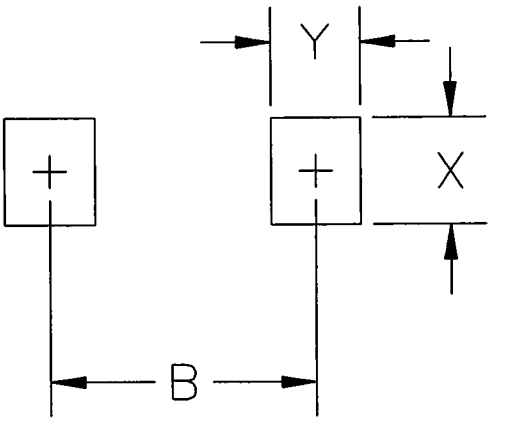


COMPONENT



LAND

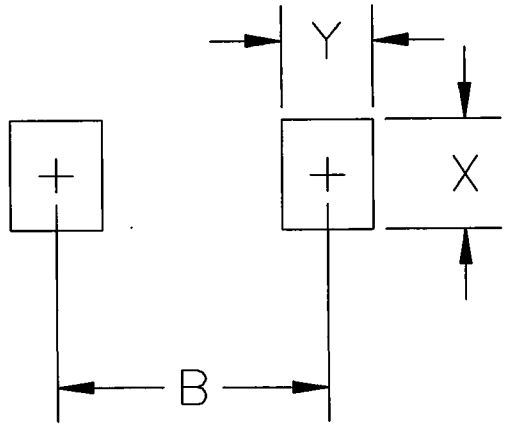
SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36−02106	A
SCALE NONE		SHEET 3	



CHIP RESISTOR – MIL-R-55342

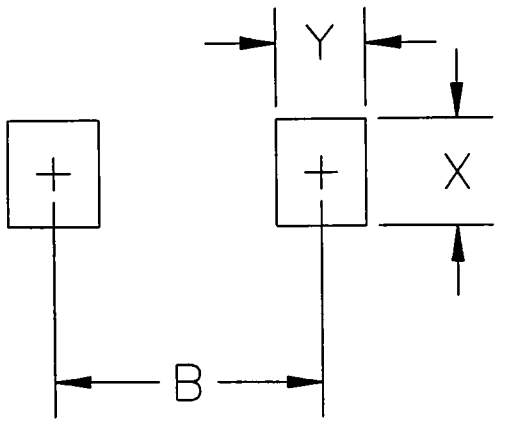
PART TYPE	B	Y	X
RM1206(/07)	.150	.060	.080
RM2010(/08)	.225	.065	.120
RM2512(/09)	.270	.060	.145
RM1010(/10)	.110	.060	.120

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	D
SCALE NONE			SHEET 4



CHIP CAPACITORS – MIL–C–55681

PART TYPE	B	Y	X
CDR01(/1)	.100	.070	.070
CDR02(/1)	.190	.080	.070
CDR03(/1)	.200	.090	.100
CDR04(/1)	.200	.090	.145
CDR05(/2)	.200	.090	.270
CDR06(/3)	.240	.090	.270
CDR32(/8A)M	.150	.090	.080
CDR34(/10)M	.200	.090	.145

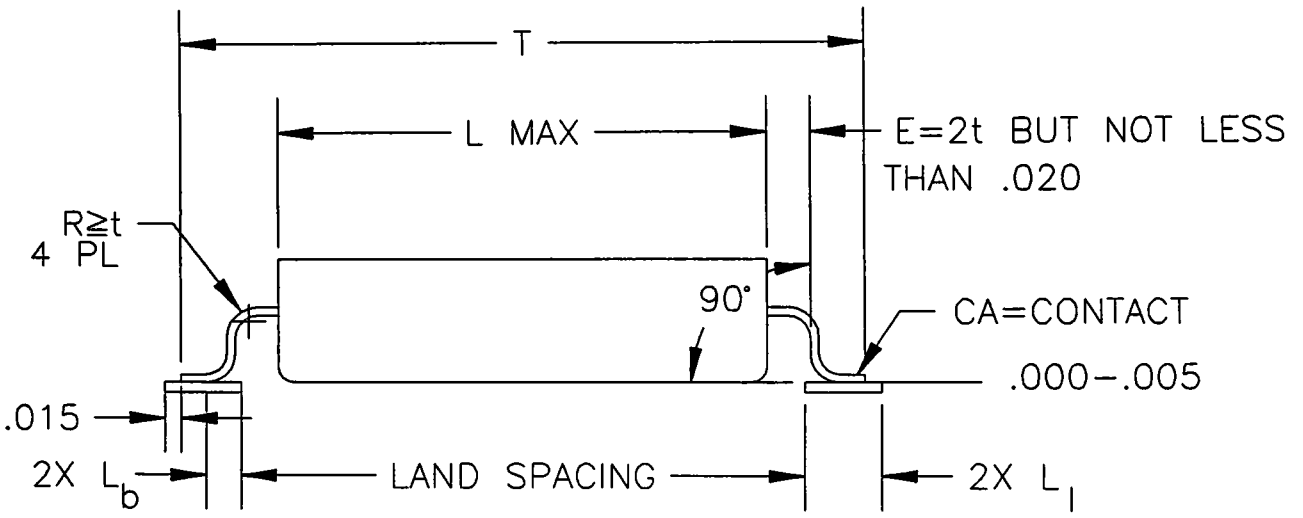


CHIP CAPACITORS – MIL-C-55365/4

PART TYPE	B	Y	X
CWR06-G	.260	.115	.130
CWR06-H	.280	.115	.170

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE			SHEET 6

FLAT PACK PARTS



L MAX = Maximum body length or width including extensions such as lead fillets and glass seals.

W = Nominal Lead Width

t = Nominal Lead Thickness

L_b = .030 for flat packs
.040 for ceramic quad flat packs

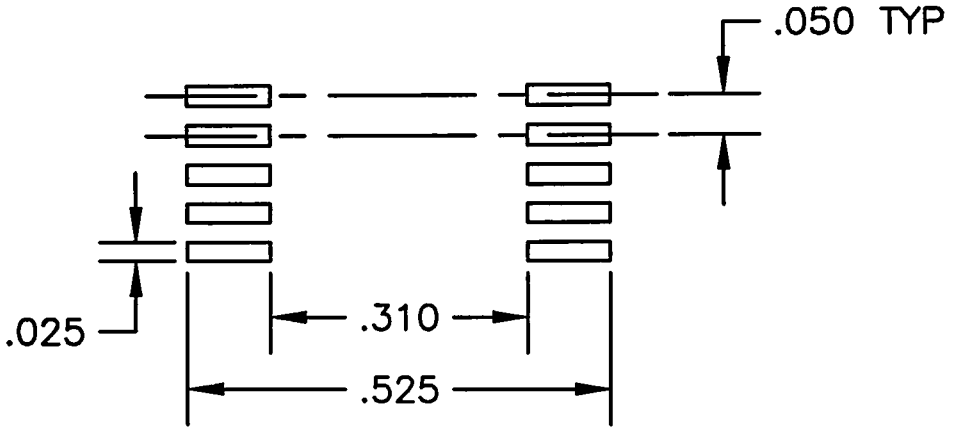
L_w = Land Width = 1.5W

L_s = Land Spacing = $L_{MAX}+2E+4R-2L_b$

L_l = Land Length = $L_b+CA+.015$

T = Toe to Toe Spacing=$L_{max}+2E+4R+2CA$

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	B
SCALE NONE			SHEET 7

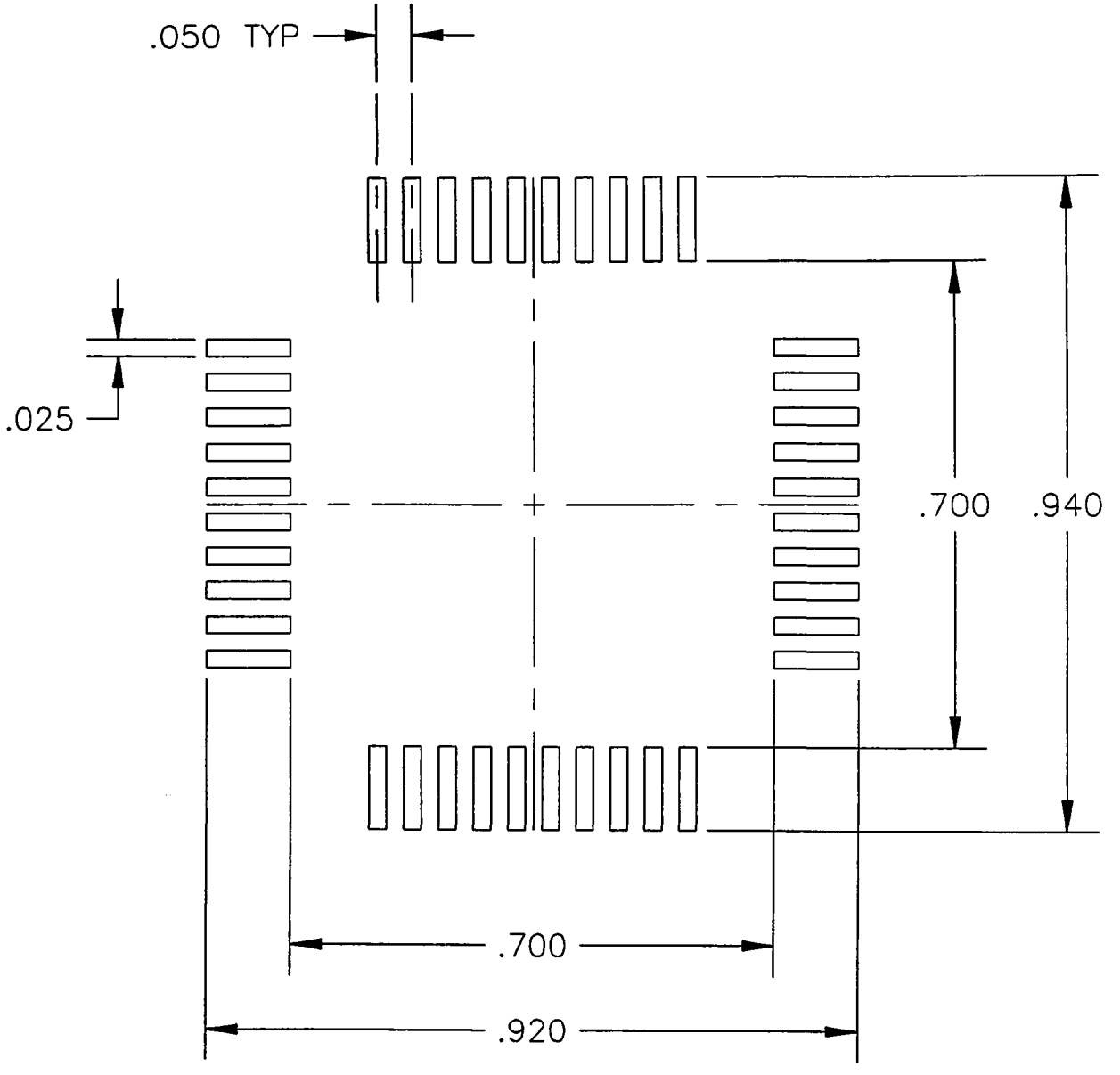


10 PIN FLATPACKS

L MAX = .260
E = .020
W = .017
t = .005
R = .020
T = .480
CA = .050

36-02305

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	C
SCALE NONE		SHEET 8	



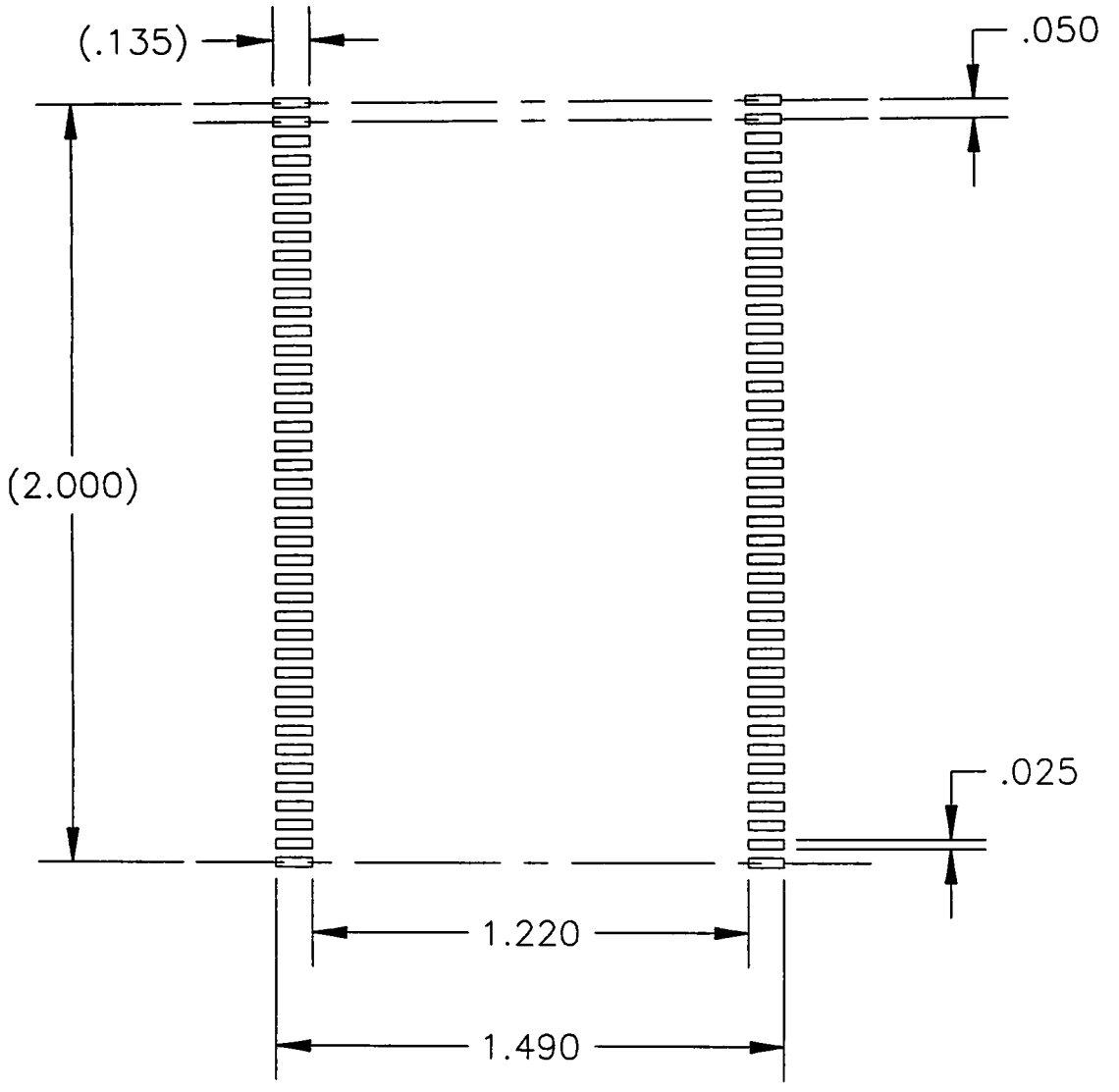
A/D Converter

Overall Lead Spacing = .875±.015
Vendor Preformed Part

L MAX = 1.460
W = .015
t = .010
CA = .040

36-02301

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE		SHEET 9	

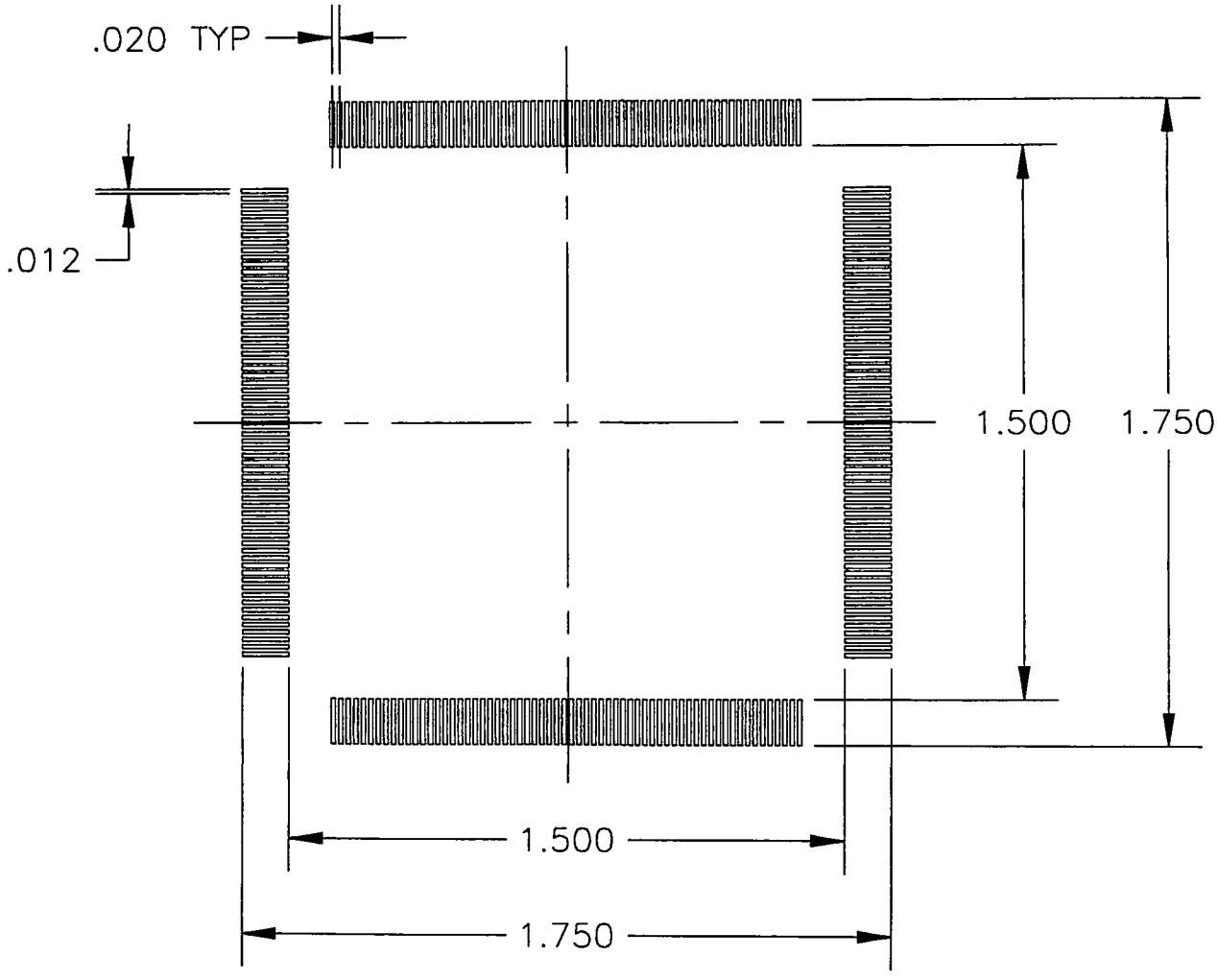


82 PIN FLATPACKS

ALLOW .001–.002 FOR ADHESIVE ATTACHMENT TO PCB.

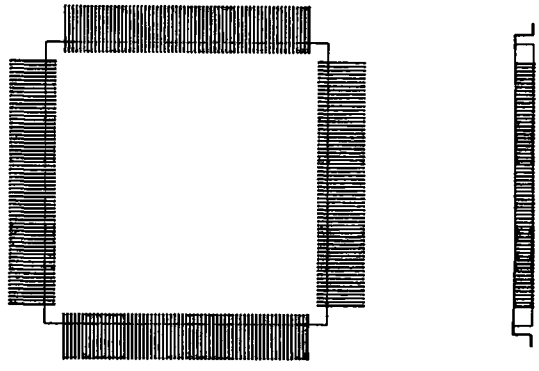
L MAX = 1.105
E = .105
W = .015
t = .005
R = .020
CA = .080
T = 1.460

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	B
SCALE NONE			SHEET 10



Mongoose

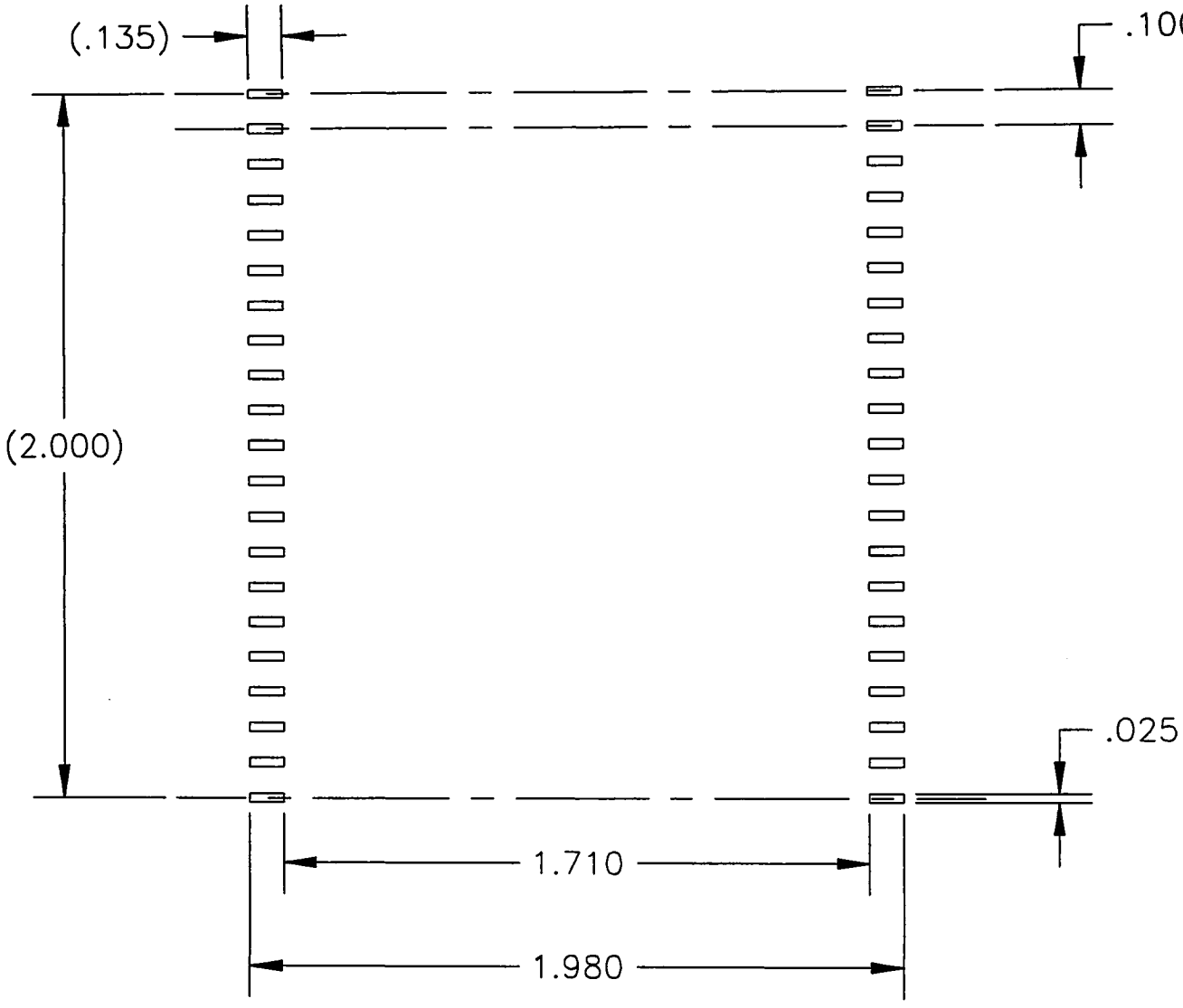
L MAX = 1.467
E = .050
W = .008
t = .005
R = .005
CA = .060
T = 1.720



PACKAGE OUTLINE REFERENCE

ALLOW .001–.002 FOR ADHESIVE ATTACHMENT TO PCB.

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	C
SCALE NONE		SHEET 11	

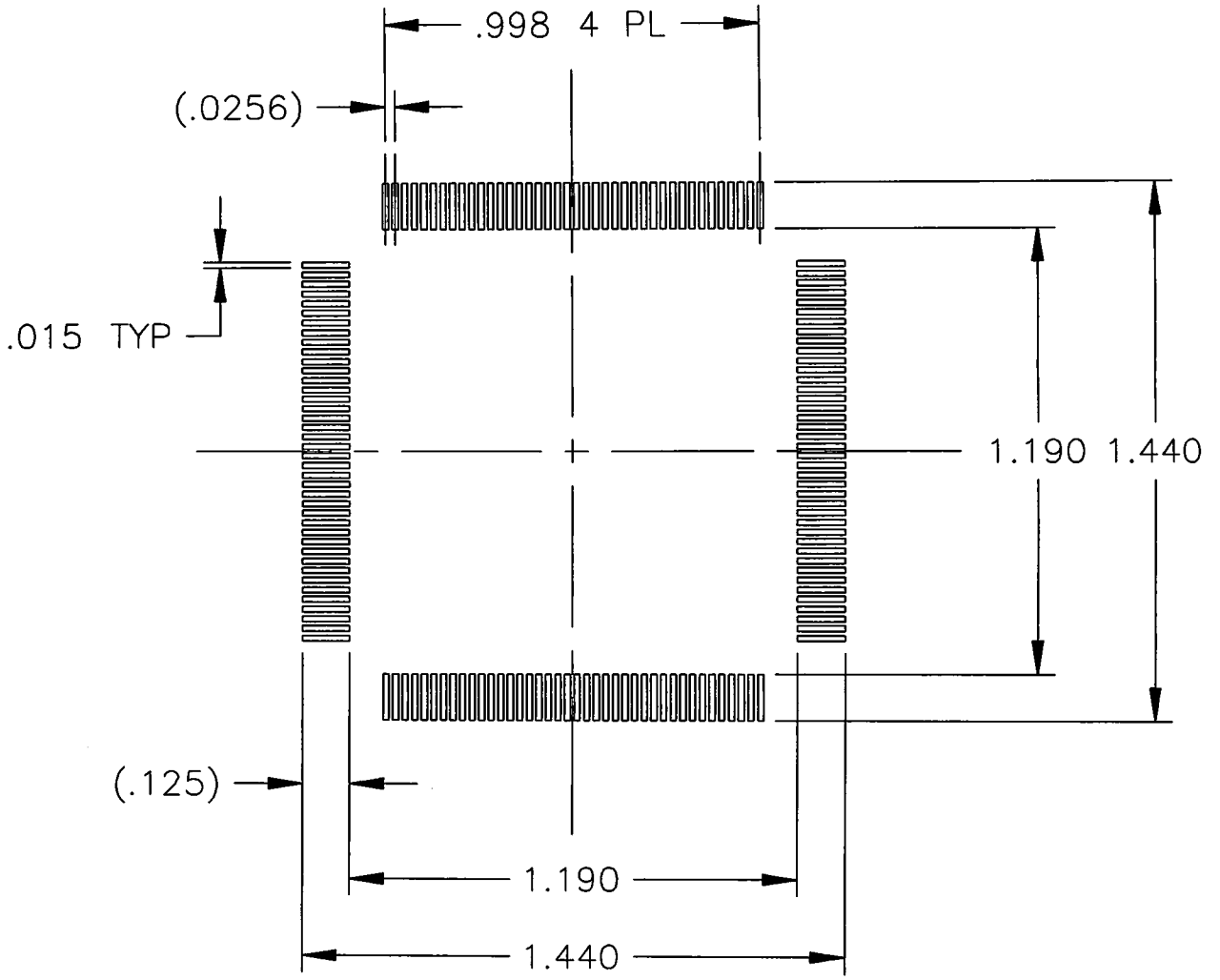


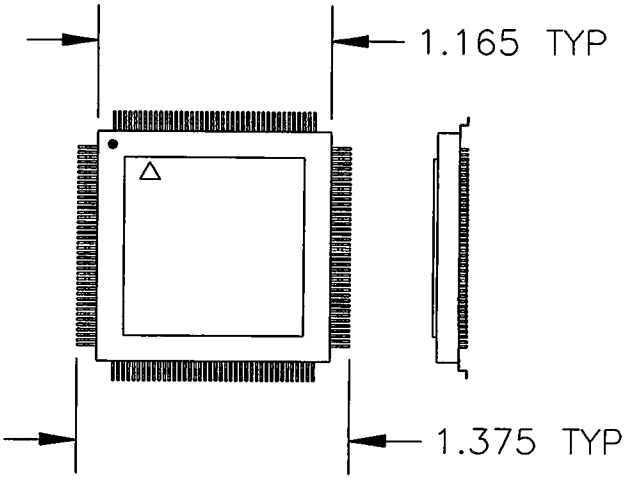
42 PIN FLATPACKS

ALLOW .001–.002 FOR ADHESIVE ATTACHMENT TO PCB.

L MAX = 1.605
E = .105
W = .015
t = .005
R = .020
CA = .080
T = 1.950

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	B
SCALE NONE			SHEET 12





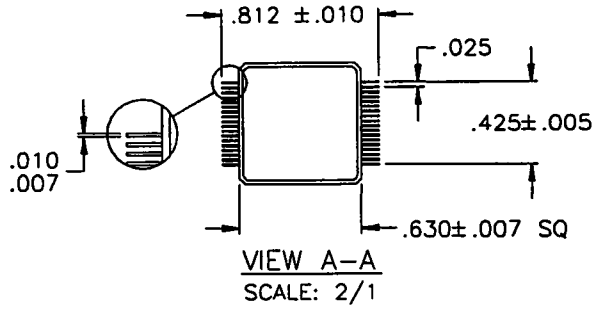
Actel (SEI Package)

Lmax = 1.165
E = .040
W = .010
t = .005
R = .010
CA = .040
T = 1.375

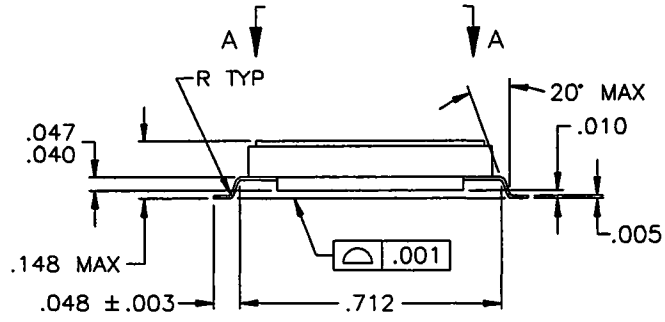
PACKAGE OUTLINE REFERENCE
36-91002.02
(TOOLING: KN-AUTO 172/25)

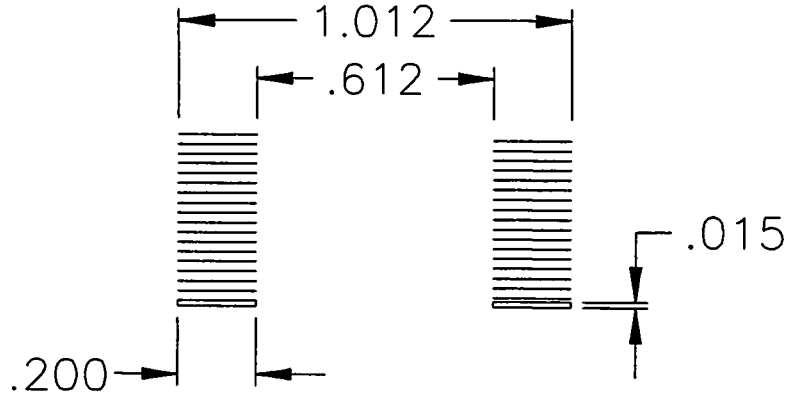
ALLOW .001-.002 FOR ADHESIVE ATTACHMENT TO PCB.

SIZE	FSCM NO.	DWG. NO.	REV.
A	80230	36-02106	C
SCALE NONE			SHEET 13



VIEW A–A
SCALE: 2/1

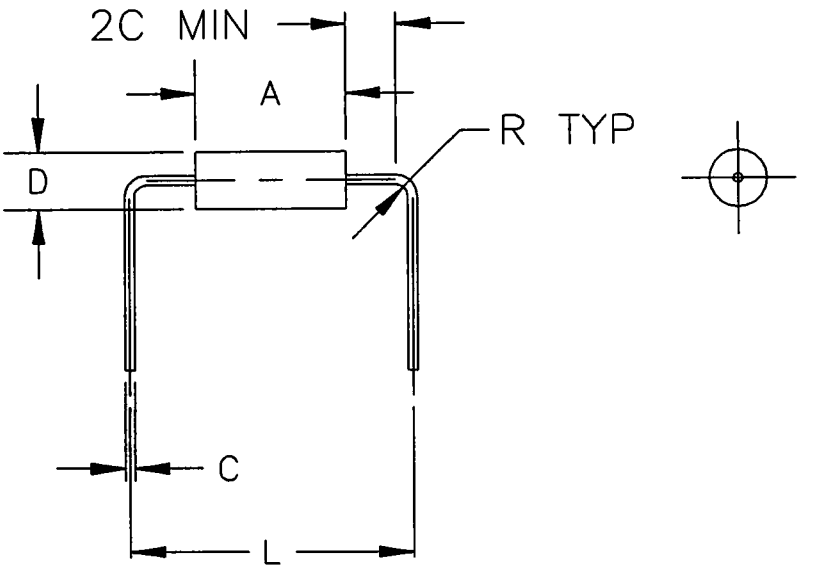




ALLOW .001–.002 FOR ADHESIVE ATTACHMENT TO PCB.

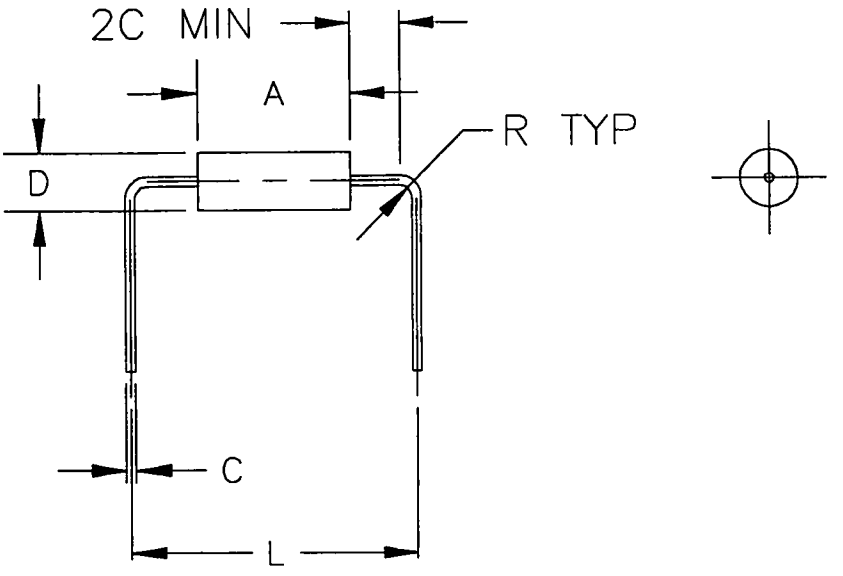
SRAM
5962H9215301QNC

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	64–02106	A
SCALE NONE			SHEET 14



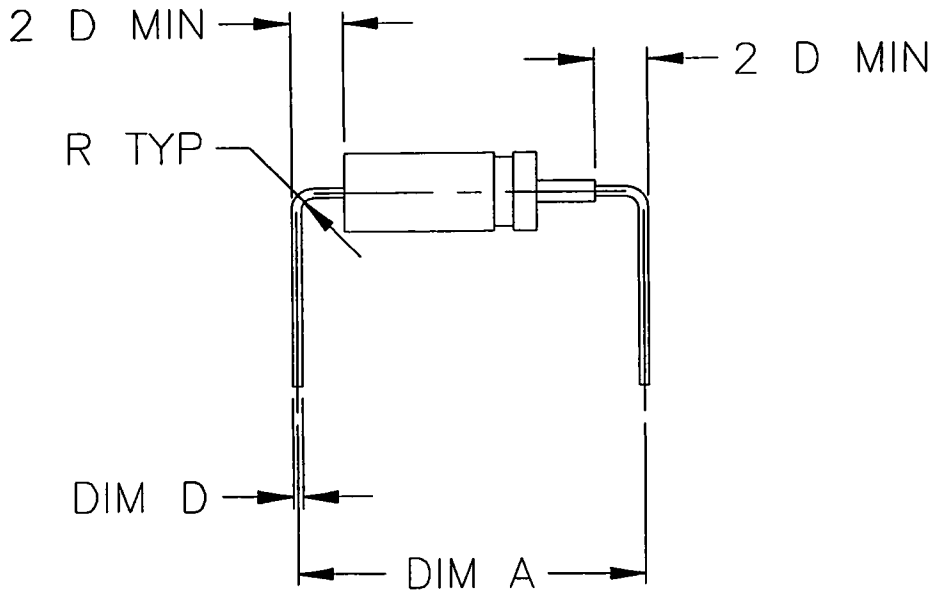
RESISTORS				
PART	A	C	D	L
RWR81	.281	.020	.105	.50

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE		SHEET 15	



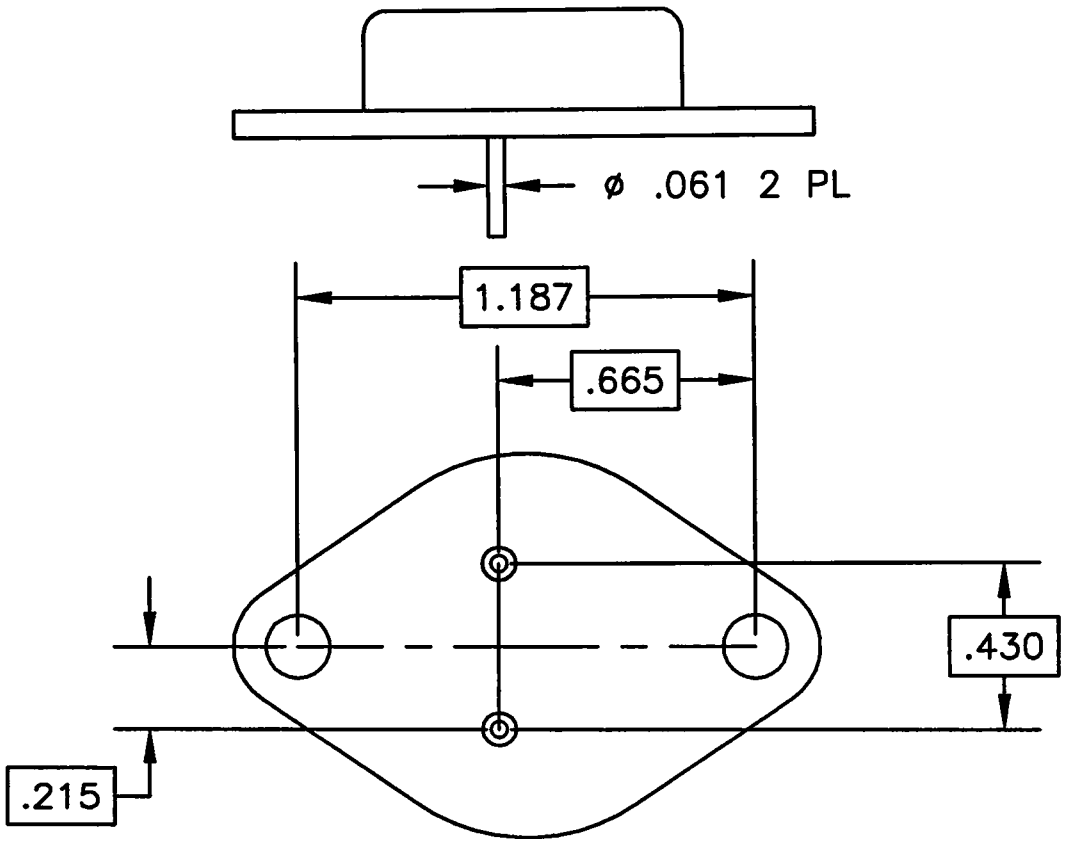
DIODES				
PART	A	C	D	L
1N649	.300	.028	.130	.50
1N963	.300	.020	.125	.50
1N4148-1	.180	.022	.075	.40
1N5712-1	.170	.022	.076	.40
1N5822	.195	.042	.145	.50

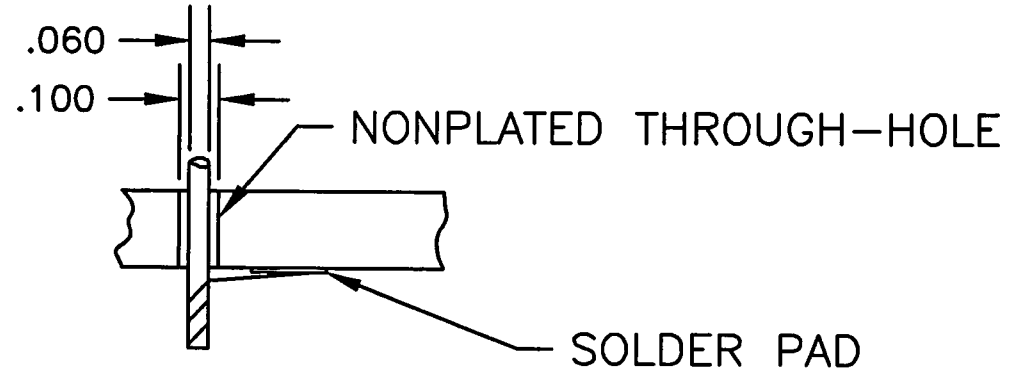
SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE		SHEET 16	

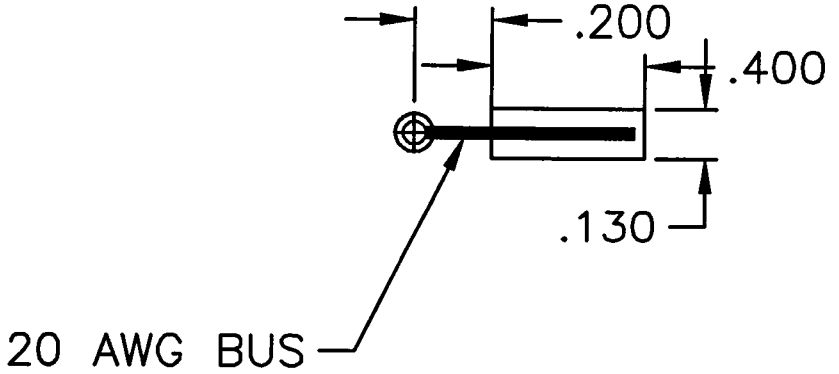


CAPACITORS		
PART	DIM A	DIM D
M39006/22 (CASE SIZE T1 & T2)	1.00	.025

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE		SHEET 17	

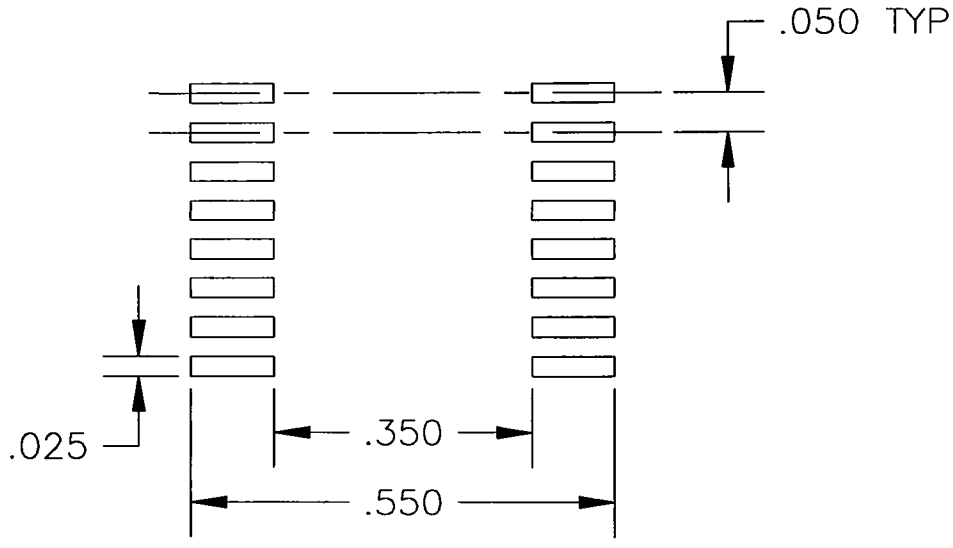




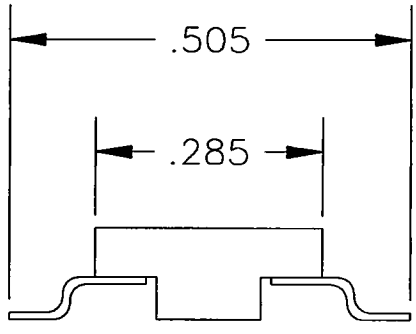


2N5684

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	B
SCALE NONE			SHEET 18



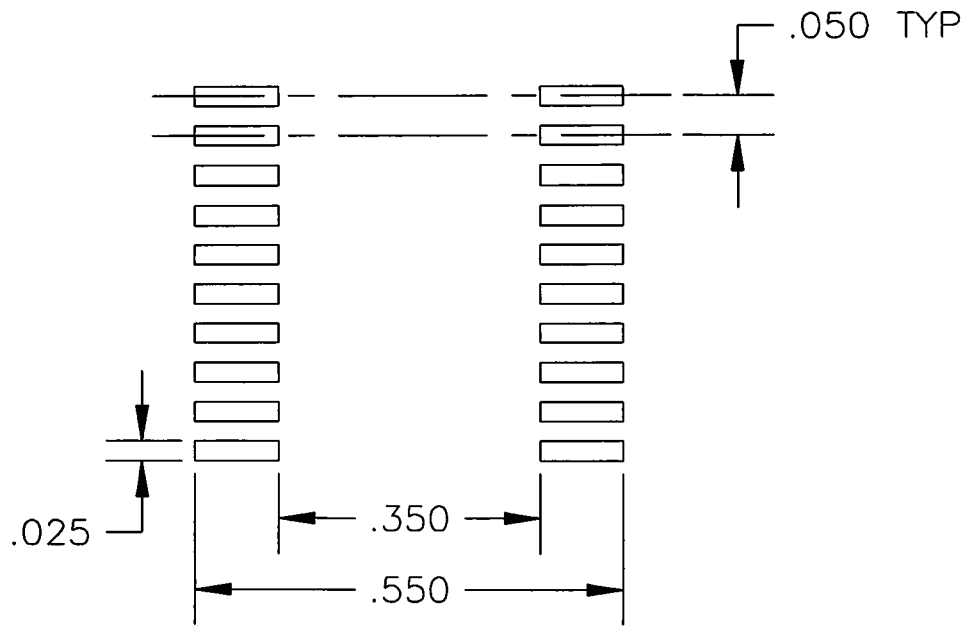
L MAX = .285
E = .020
W = .017
t = .005
R = .020
T = .505
CA = .050



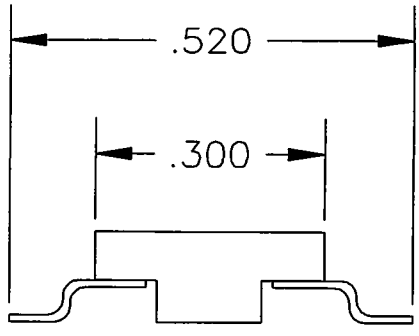
PACKAGE OUTLINE REFERENCE

16 PIN FLATPACKS

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE		SHEET 19	



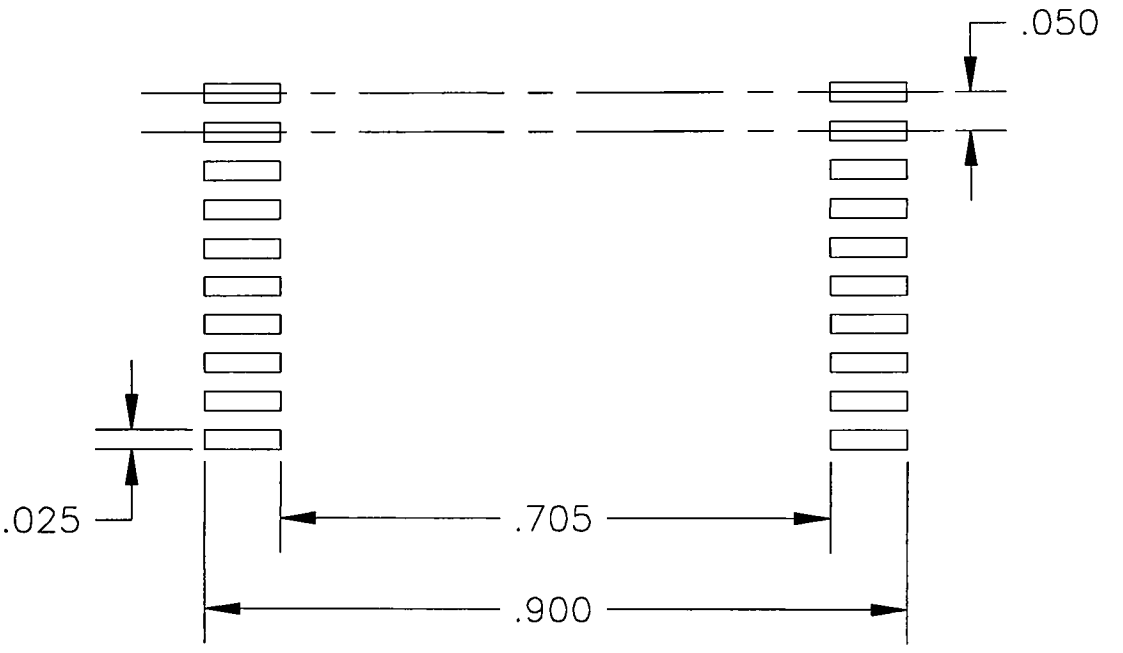
L MAX = .300
E = .020
W = .017
t = .005
R = .020
T = .520
CA = .050

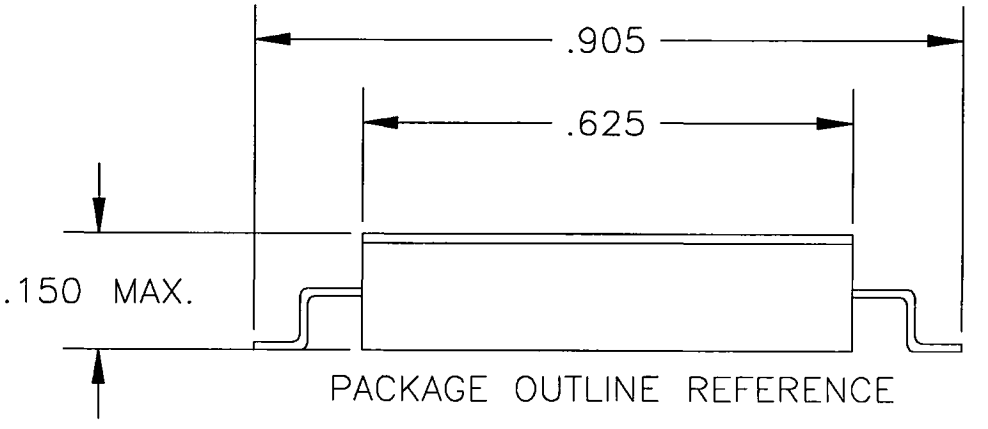


PACKAGE OUTLINE REFERENCE

20 PIN FLATPACKS

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE			SHEET 20



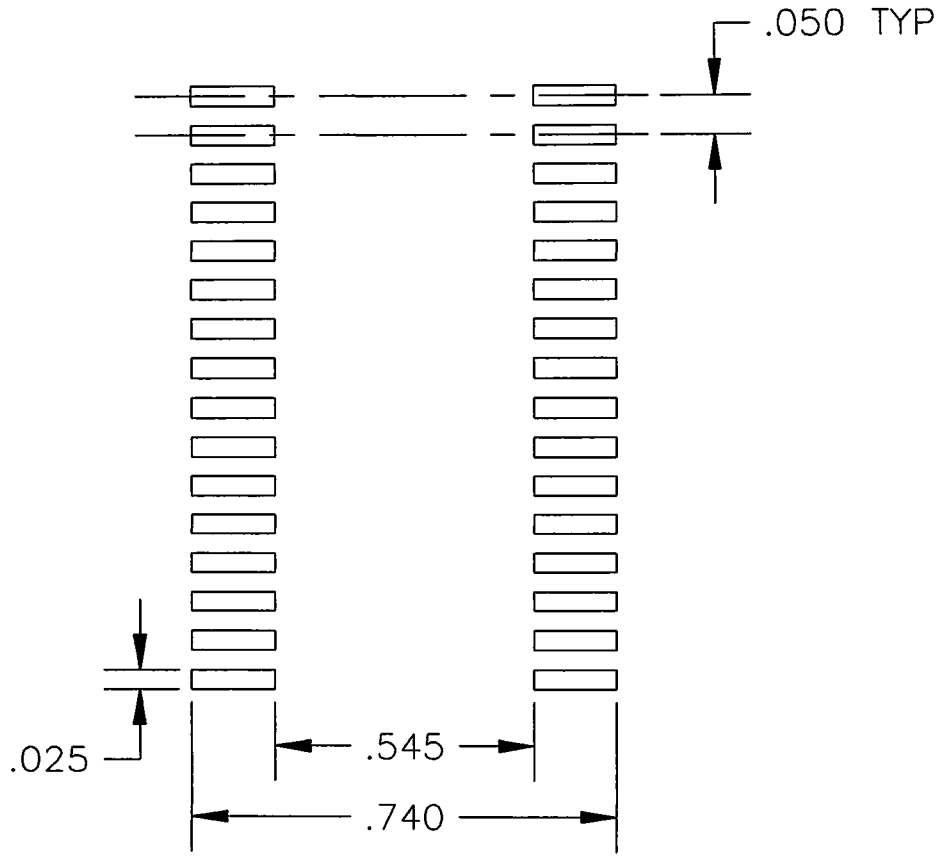


PACKAGE OUTLINE REFERENCE

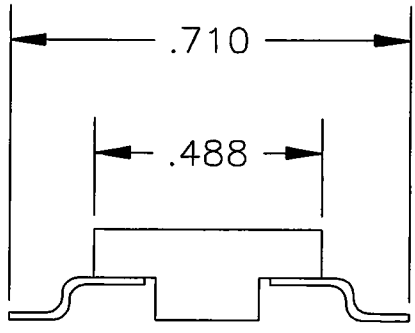
L MAX = .625
E = .050
W = .015
t = .010
R = .010
T = .905
CA = .050

QT25

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE		SHEET 21	



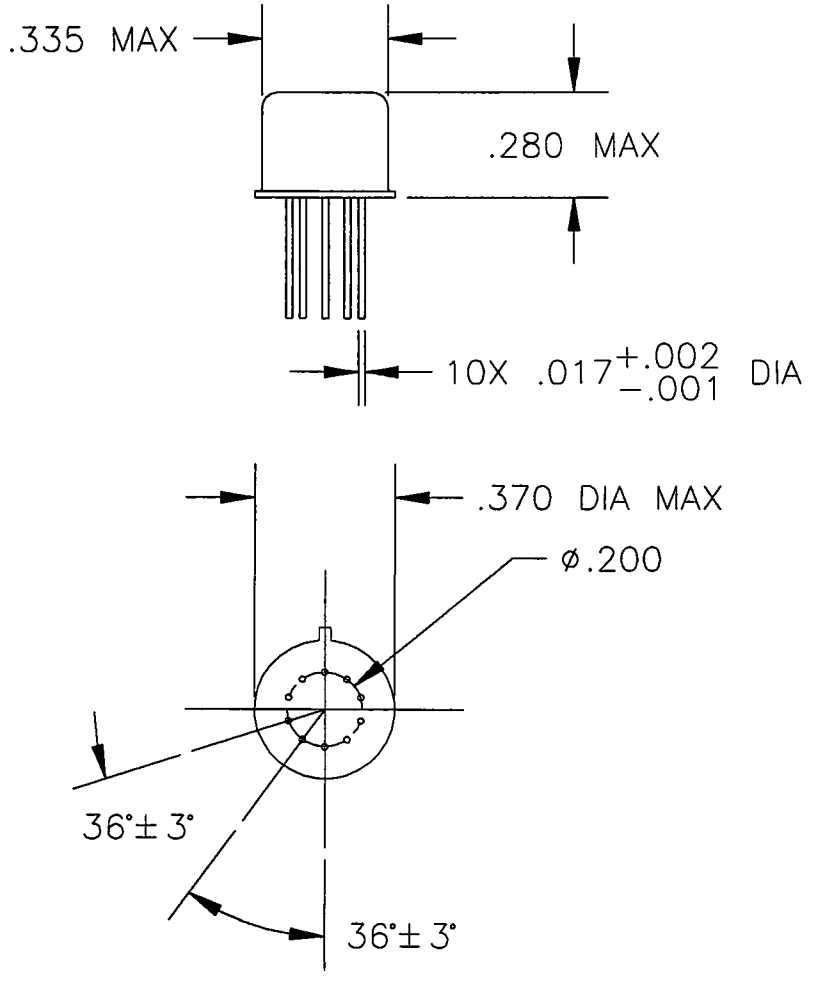
L MAX = .488
E = .020
W = .017
t = .005
R = .020
T = .710
CA = .050



PACKAGE OUTLINE REFERENCE

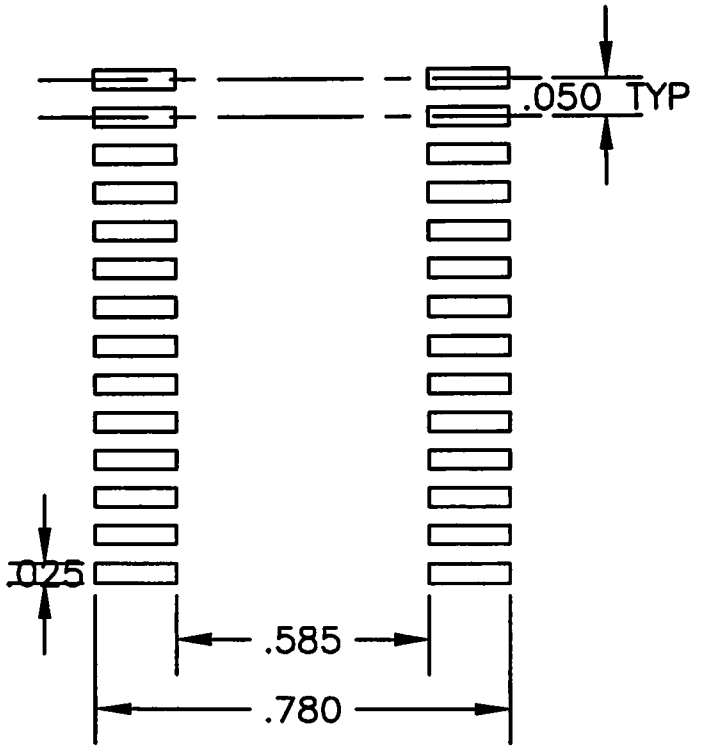
36-02306

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE		SHEET 22	

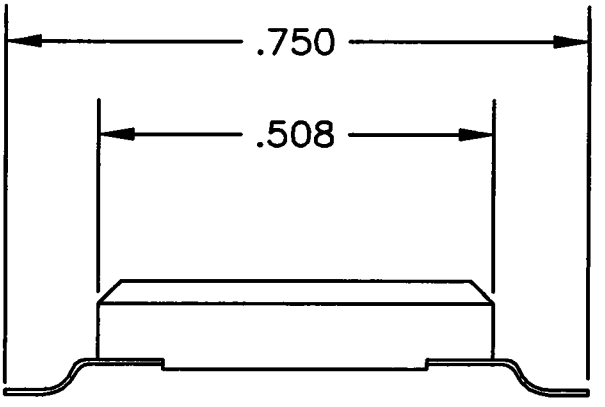


M39016/29-060

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE			SHEET 23



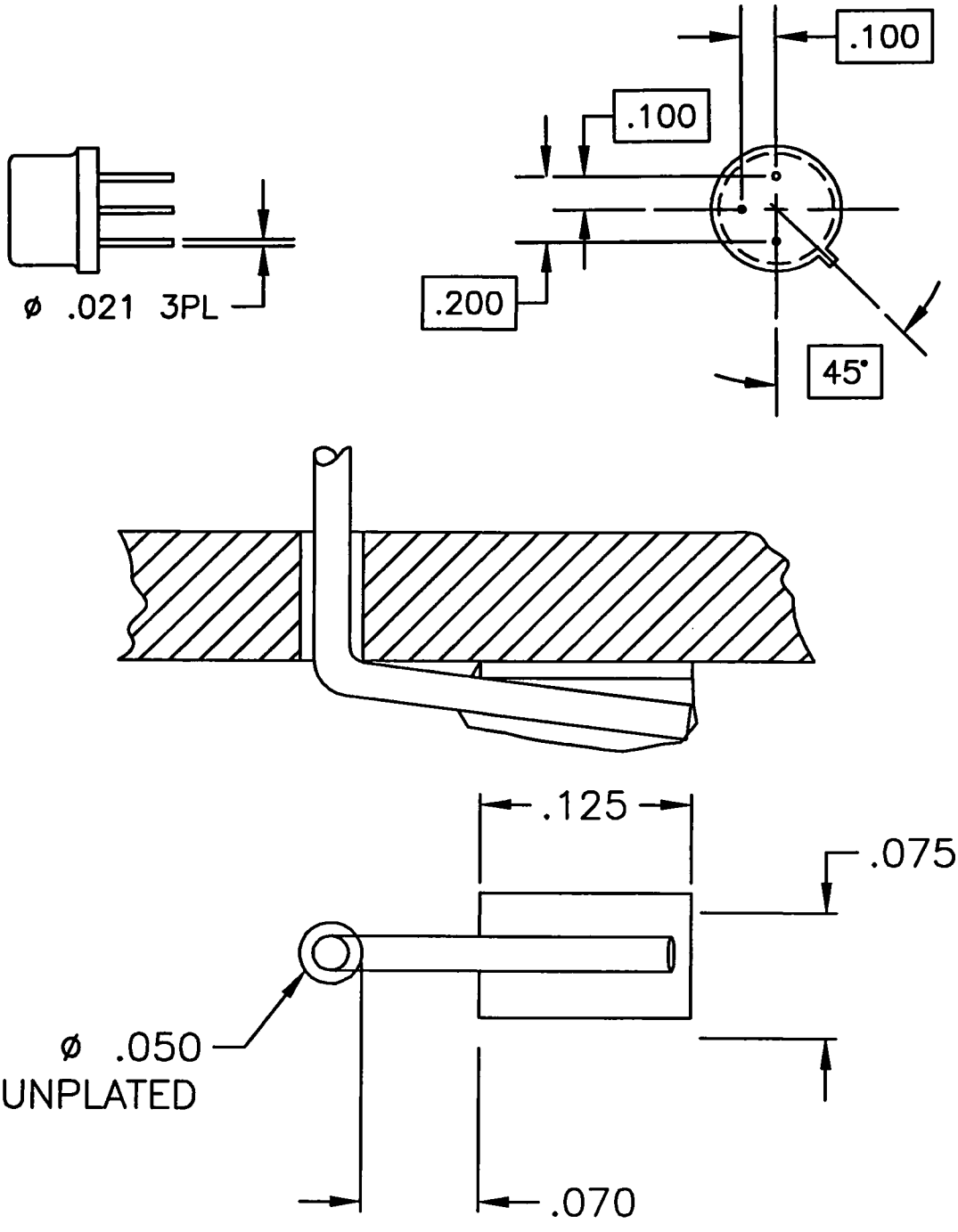
L MAX = .508
E = .020
W = .019
t = .006
R = .020
T = .750
CA = .050



PACKAGE OUTLINE REFERENCE
(MA7001)

36-91001.30

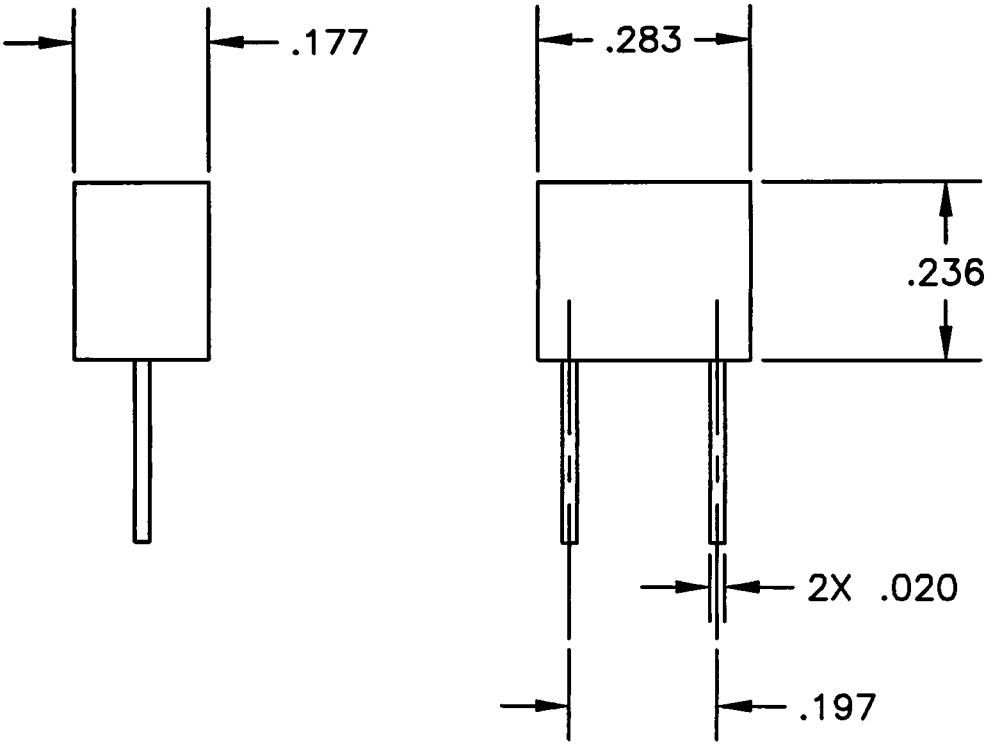
SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE		SHEET 24	



TYPICAL TERMINATION UNDER HEATSINK
SCALE 10/1

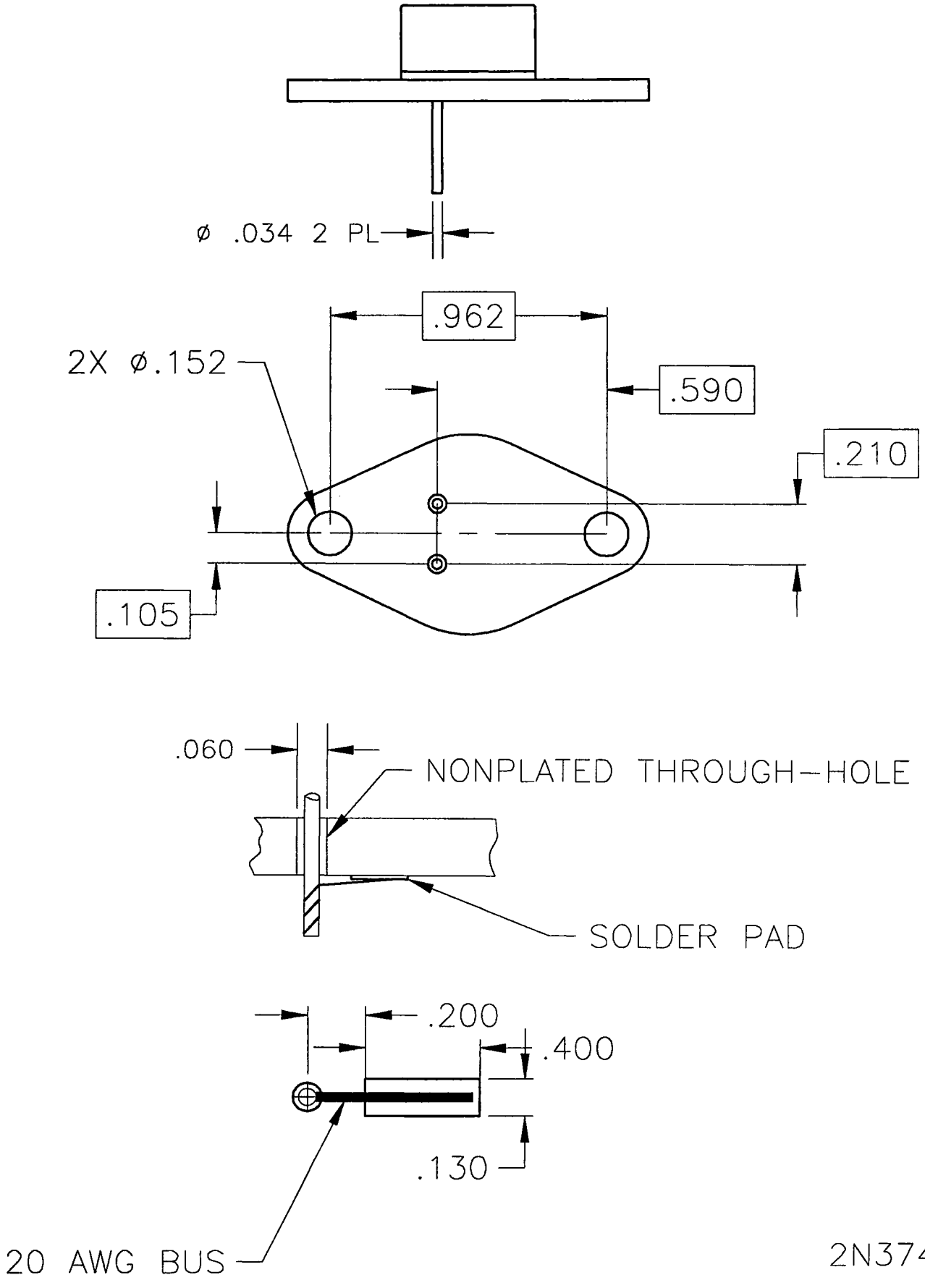
2N2219 & 2N2205

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE			SHEET 25



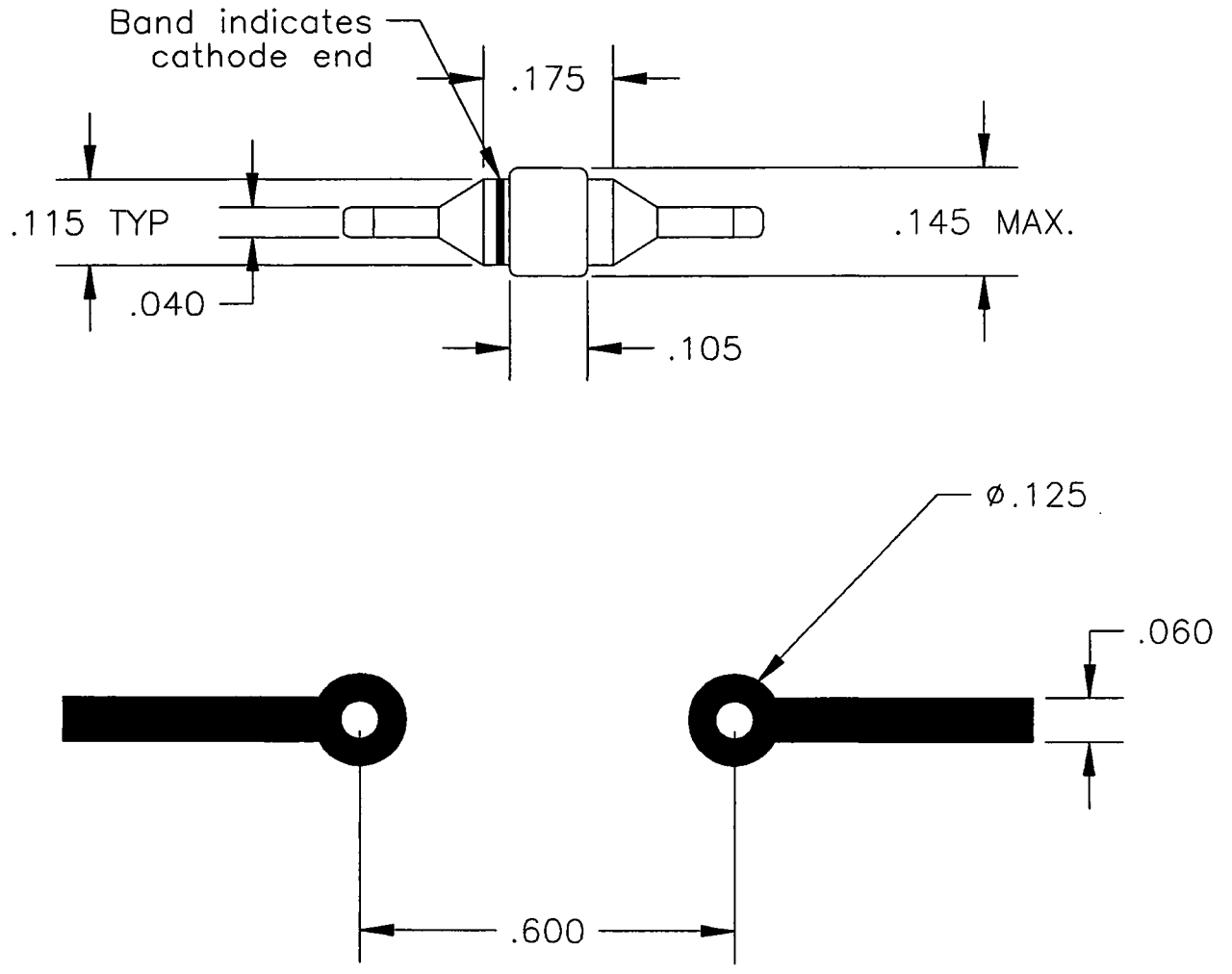
36-02312

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE			SHEET 26



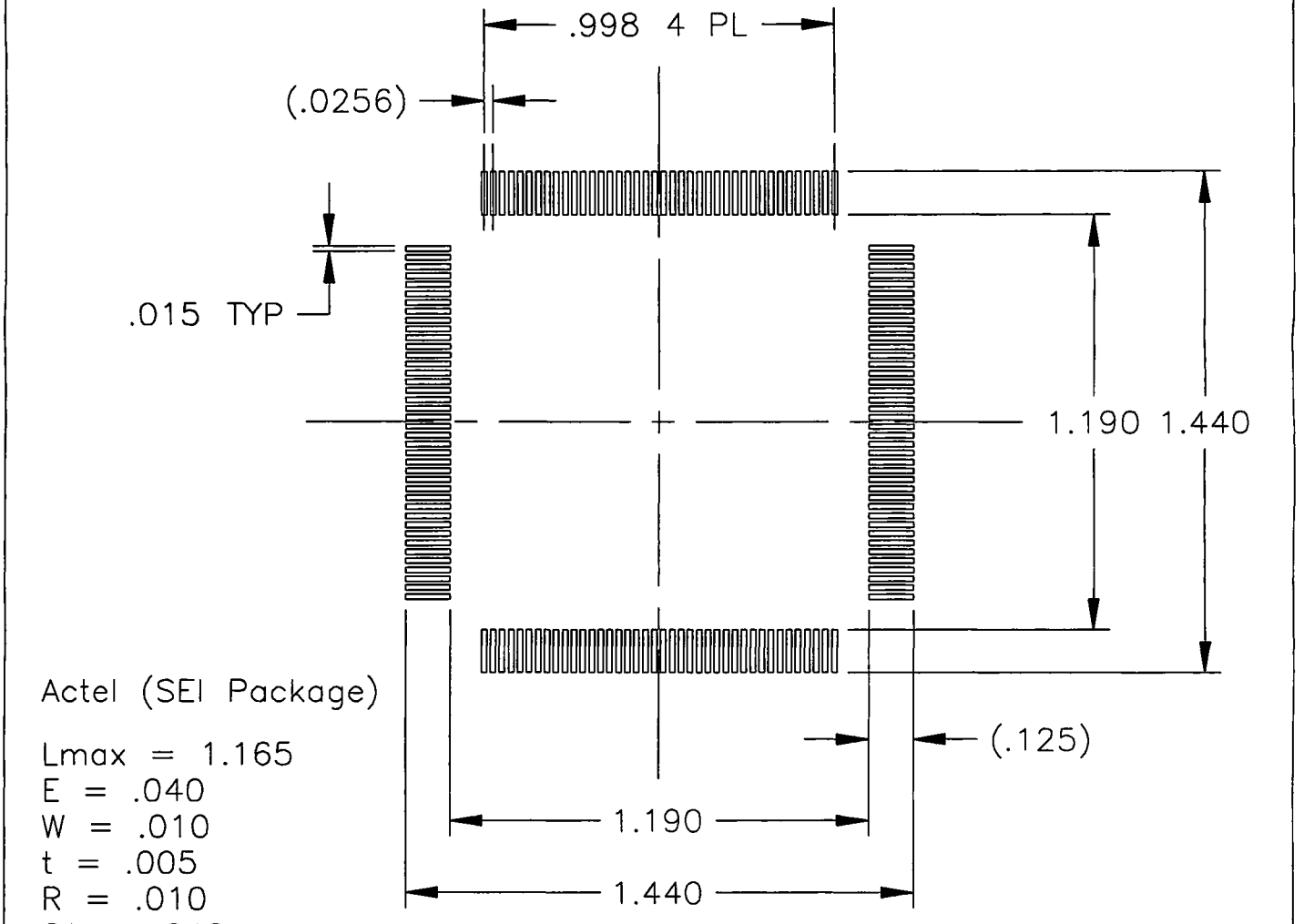
2N3740

SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE			SHEET 27



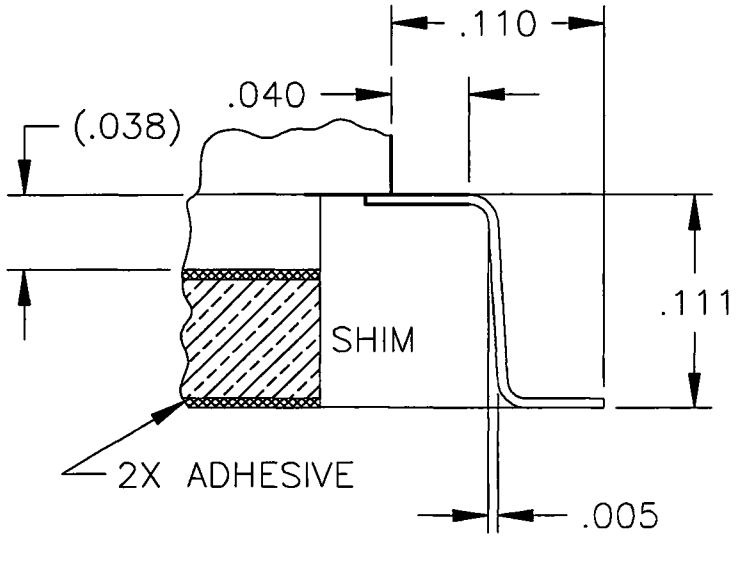
1N4957
1N4966
1N4970

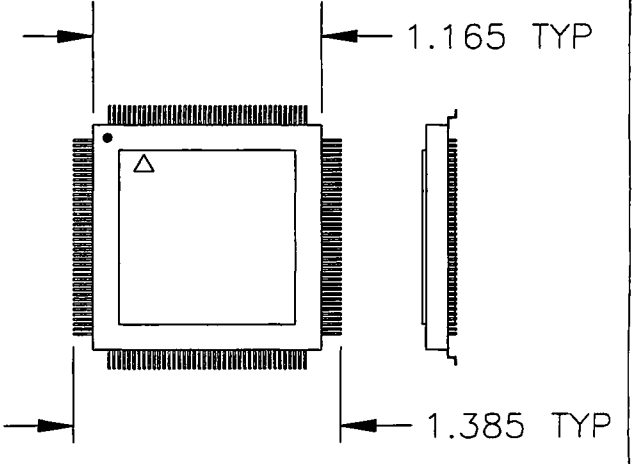
SIZE	CAGE CODE	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE			SHEET 28



Actel (SEI Package)

Lmax = 1.165
E = .040
W = .010
t = .005
R = .010
CA = .040
T = 1.385





PACKAGE OUTLINE REFERENCE
36-91002.02

HEIGHT INCLUDES .010 FOR ADHESIVE AND .0625 SHIM.

SIZE	FSCM NO.	DWG. NO.	REV.
A	80230	36-02106	A
SCALE NONE			SHEET 29