

# STANDARD LCD PRODUCT SELECTION GUIDE

	DIGIT HEIGHT		DESCRIPTION	MODEL NO.	GLASS SIZE		DRIVING METHOD	CONNECTOR TYPE		PAGE
	INCH	MM			INCH	MM		RUBBER	DIL PIN	
01	0.177	4,50	8 DIGITS + 8 DP + ICONS	C3356	1.110 X 0.394	28,20 X 10,00	3 MUX	✓		26
02	0.197	5,00	8 DIGITS + 8 DP + ICONS	C3026	1.575 X 0.567	40,00 X 14,40	3 MUX	✓		26
03			8 DIGITS + 8 DP + ICONS	C3030	1.575 X 0.567	40,00 X 14,40	3 MUX	✓		26
04	0.236	6,00	8 DIGITS + 8 DP + ICONS	I3034	1.496 X 0.799	37,99 X 20,29	2 MUX	✓		25
05	0.252	6,40	8 DIGITS + ICONS	I3884	1.457 X 0.669	37,00 X 17,00	2 MUX	✓		29
06	0.256	6,50	16 DIGITS + 16 DP	I3712	3.000 X 0.697	76,20 X 17,70	4 MUX	✓		27
07				I3713					✓	
08	0.268	6,80	4 DIGITS + 3 DP	I1073	0.941 X 0.551	23,90 X 14,00	STATIC	✓		18
09	0.276	7,00	8 ALPHANUMERIC + 8 DP + ICONS	I3714	2.047 X 0.866	52,00 X 22,00	4 MUX	✓		27
10	0.315	8,00	4 DIGITS + 3 DP + 1 COL + ICONS	I1076	1.496 X 0.799	38,00 X 20,30	STATIC	✓		18
11	0.350	8,89	3 DIGITS + 2 DP	I1059	1.200 x 0.900	30,48 x 22,86	STATIC		✓	14
12				I1086				✓		14
13			3-1/2 DIGITS + 3 DP + 1 COL + ICONS	I1061	2.000 x 0.900	50,80 x 22,86	STATIC		✓	15
14			4-1/2 DIGITS + 4 DP + 2 COL + ICONS	I1050	2.000 x 0.900	50,80 x 22,86	STATIC		✓	17
15			4 DIGITS + 3 DP + 1 COL	I1049	2.000 x 0.900	50,80 x 22,86	STATIC	✓		18
16				I1018					✓	18
17			4 DIGITS + 1 COL + ICONS	I1014	2.000 x 0.900	50,80 x 22,86	STATIC	✓		24
18	0.354	9,00	16 DIGITS + 16 DP	I3667	3.346 X 1.146	85,00 X 29,10	4 MUX	✓		31
19	0.355	9,02	8 DIGITS + 8 DP + ICONS	I3651	2.756 X 0.984	70,00 X 24,99	3 MUX		✓	25
20	0.394	10,00	3-1/2 DIGITS + 3 DP + ICONS	I1194	0.728 X 1.457	18,50 X 37,00	STATIC	✓		22
21	0.400	10,16	4-1/2 DIGITS + 4 DP + 2 COL + ICONS	I1077	2.000 X 1.200	50,80 X 30,48	STATIC		✓	17
22			5 DIGITS + 2 DP + 2 COL	I1058	2.000 X 1.200	50,80 X 30,48	STATIC		✓	20
23				I1391				✓		20
24			4-1/2 DIGITS + 4 DP + 2 COL + ICONS	I1123	2.000 X 1.200	50,80 X 30,48	STATIC		✓	22
25	0.450	11,43	7 DIGITS + 6 DP	C1019	3.070 X 1.000	77,98 X 25,40	STATIC		✓	31
26	0.470	11,94	4 DIGITS + 4 DP + 1 COL + ICONS	I1248	1.975 X 0.900	50,17 X 22,86	STATIC	✓		28
27	0.472	12,00	4 DIGITS + 1 COL + ICONS	I1203	1.975 X 0.900	50,17 X 22,86	STATIC	✓		28
28	0.500	12,70	2 DIGITS + 2 DP	I1045	1.100 X 1.200	28,00 X 30,48	STATIC		✓	14
29				I1027				✓		14
30			2 DIGITS + 2 DP	I1075	1.200 X 1.200	30,48 X 30,48	STATIC		✓	14
31			3-1/2 DIGITS + 3 DP + 1 COL + ICONS	I1048	2.000 X 1.200	50,80 X 30,48	STATIC		✓	15
32			3-1/2 DIGITS + 3 DP + 1 COL + ICONS	I1016	2.000 X 1.200	50,80 X 30,48	STATIC		✓	16
33				I1015				✓		16
34			3-1/2 DIGITS + 3 DP + 1 COL + ICONS	I1126	2.000 X 1.200	50,80 X 30,48	STATIC		✓	16
35			4 DIGITS + 3 DP + 1 COL	I1017	2.000 X 1.200	50,80 X 30,48	STATIC		✓	19
36				I1051				✓		19
37			6 DIGITS + 5 DP + 2 COL	I1056	2.750 X 1.200	69,85 X 30,48	STATIC		✓	21
38	I1088	✓						21		

## STANDARD LCD PRODUCT SELECTION GUIDE

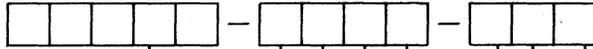
	DIGIT HEIGHT		DESCRIPTION	MODEL NO.	GLASS SIZE		DRIVING METHOD	CONNECTOR TYPE		PAGE
	INCH	MM			INCH	MM		RUBBER	DIL PIN	
39	0.500	12,70	8 DIGITS + 7 DP + 3 COL	I1057	3.695 X 1.200	93,85 X 30,48	STATIC		✓	25
40			3-1/2 DIGITS + 3 DP + ICONS	I1187	1.970 X 0.900	50,04 X 22,86	STATIC	✓		28
41			10 DIGITS + 10 DP	I1380	3.346 X 1.146	85,00 X 29,10	STATIC	✓		29
42	0.512	13,00	3-1/2 DIGITS + 3 DP + ICONS	I1384	2.750 X 1.200	69,85 X 30,48	STATIC		✓	22
43	0.551	14,00	8 ALPHANUMERIC + 8 DP	I3672	3.346 X 1.146	85,00 X 29,10	4 MUX	✓		31
44	0.600	15,24	3-1/2 DIGITS + 3 DP + 1 COL + ICONS	T1389	2.250 X 1.200	57,15 X 30,48	STATIC		✓	24
45	0.650	16,50	6 DIGITS + 5 DP + ICONS	I1381	3.346 X 1.146	85,00 X 29,10	STATIC	✓		29
46	0.700	17,78	3-1/2 DIGITS + 3 DP + 1 COL + ICONS	I1083	2.750 X 1.500	69,85 X 38,10	STATIC		✓	15
47			3-1/2 DIGITS + 3 DP + 1 COL + ICONS	I1129	2.750 X 1.500	69,85 X 38,10	STATIC		✓	16
48			4 DIGITS + 3 DP + 1 COL	I1060	2.750 X 1.500	69,85 X 38,10	STATIC		✓	19
49			5 DIGITS + 4 DP + 1 COL	I1105	3.200 X 1.500	81,28 X 38,10	STATIC		✓	20
50			6 DIGITS + 5 DP + 2 COL	I1082	3.695 X 1.500	93,85 X 38,10	STATIC		✓	21
51	0.728	18,50	3-1/2 DIGITS + 1 COL + ICONS	T3149	2.047 X 1.083	52,00 X 27,50	2 MUX	✓		24
52	0.800	20,32	4-1/2 DIGITS + 4 DP + 2 COL + ICONS	I1117	3.695 X 1.800	93,85 X 45,72	STATIC		✓	17
53	0.886	22,50	6 DIGITS + 5 DP + ICONS	I1386	3.681 X 2.126	93,50 X 54,00	STATIC	✓		30
54	1.000	25,40	4 DIGITS + 3 DP + 1 COL	I1152	3.700 X 1.800	93,98 X 45,72	STATIC		✓	19
55			5 DIGITS + 4 DP + 1 COL	I1095	4.500 X 1.800	114,30 X 45,72	STATIC		✓	20
56			6 DIGITS + 5 DP + 2 COL	I1118	5.400 X 1.800	137,16 X 45,72	STATIC		✓	21
57			5 DIGITS + 5 DP + ICONS	I1387	3.681 X 2.126	93,50 X 54,00	STATIC	✓		30
58	-	-	5 X 7 DOT MATRIX - 1 CHARACTER	I1025	1.800 X 2.500	45,72 X 63,50	STATIC		✓	23
59	-	-	5 X 7 DOT MATRIX - 1 CHARACTER	I1028	2.250 X 3.250	57,15 X 82,55	STATIC		✓	23
60	-	-	BAR GRAPH - 32 BARS	I1147	4.005 X 1.200	101,73 X 30,48	STATIC		✓	27
61	-	-	5 X 8 DOT MATRIX - 1 X 8 CHARACTER	I3891	1.996 X 0.827	50,70 X 21,00	8 MUX	✓		32
62	-	-	5 X 8 DOT MATRIX - 1 X 8 CHARACTER	I3665	2.638 X 1.016	67,00 X 25,80	8 MUX	✓		32
63	-	-	5 X 8 DOT MATRIX - 1 X 8 CHARACTER	I3664	3.346 X 1.146	85,00 X 29,10	8 MUX	✓		32
64	-	-	5 X 8 DOT MATRIX - 1 X 16 CHARACTER	I3376	2.638 X 1.016	67,00 X 25,80	16 MUX	✓		33
65	-	-	5 X 8 DOT MATRIX - 1 X 16 CHARACTER	I3886	1.972 X 0.827	50,10 X 21,00	16 MUX	✓		33
66	-	-	5 X 8 DOT MATRIX - 1 X 16 CHARACTER	I3735	2.717 X 0.760	69,00 X 19,30	16 MUX	✓		34
67	-	-	5 X 8 DOT MATRIX - 1 X 16 CHARACTER	I3675	3.346 X 1.146	85,00 X 29,10	16 MUX	✓		34
68	-	-	5 X 8 DOT MATRIX - 1 X 20 CHARACTER	I3281	6.321 X 1.043	160,55 X 26,50	8 MUX	✓		35
69	-	-	5 X 11 DOT MATRIX - 1 X 40 CHARACTER	I3263	6.311 X 1.043	160,30 X 26,50	11 MUX	✓		35
70	-	-	5 X 8 DOT MATRIX - 2 X 16 CHARACTER	I3331	2.638 X 1.016	67,00 X 25,80	16 MUX	✓		36
71	-	-	5 X 8 DOT MATRIX - 2 X 16 CHARACTER	I3249	2.756 X 0.925	70,00 X 23,50	16 MUX	✓		36
72	-	-	5 X 8 DOT MATRIX - 2 X 16 CHARACTER	I3603	3.346 X 1.154	85,00 X 29,30	16 MUX	✓		36
73	-	-	5 X 8 DOT MATRIX - 2 X 20 CHARACTER	I3406	3.543 X 1.142	90,00 X 29,00	16 MUX	✓		37
74	-	-	5 X 8 DOT MATRIX - 2 X 24 CHARACTER	I3387	3.543 X 1.142	90,00 X 29,00	16 MUX	✓		37
75	-	-	5 X 8 DOT MATRIX - 4 X 16 CHARACTER	I3644	2.862 X 1.772	72,70 X 45,00	16 MUX	✓		38
76	-	-	5 X 8 DOT MATRIX - 4 X 20 CHARACTER	I3407	3.701 X 1.496	94,00 X 38,00	16 MUX	✓		38

### CUSTOM LCD INFORMATION

APPLICATION	<input type="checkbox"/> Calculator <input type="checkbox"/> Audio Equipments <input type="checkbox"/> Automobile <input type="checkbox"/> Watch <input type="checkbox"/> Instruments <input type="checkbox"/> Game <input type="checkbox"/> Clock <input type="checkbox"/> Telephone <input type="checkbox"/> Others
DIMENSIONS	<p style="text-align: right; margin-right: 50px;">Rear Polarizer (Reflector)</p> <p style="text-align: center;">Viewing area      Polarizer Front</p>
LCD CONFIGURATION	<p style="text-align: center;"><u>Elastomer Type</u></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>(1) Double Row</p> </div> <div style="text-align: center;"> <p>(2) Single Row (bottom)</p> </div> <div style="text-align: center;"> <p>(3) Single Row (top)</p> </div> </div> <p style="text-align: center; margin-top: 20px;"><u>Dip Pack Pinned Type</u></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>(4) D.I.L.</p> </div> <div style="text-align: center;"> <p>(5) Single Row (bottom)</p> </div> <div style="text-align: center;"> <p>(6) Single Row (top)</p> </div> </div> <p style="text-align: center; margin-top: 20px;"><u>Flat Pack Pinned Type</u></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>(7) D.I.L.</p> </div> <div style="text-align: center;"> <p>(8) Single Row (bottom)</p> </div> <div style="text-align: center;"> <p>(9) Single Row (top)</p> </div> </div>
OPTIMUM VIEW DIRECTION	<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>—— Top View (12:00 o'clock)</p> <p><math>\theta = +</math> _____ Degrees</p> <p>—— Bottom View (6.00 o'clock)</p> <p><math>\theta = -</math> _____ Degrees</p> <p>—— Other _____</p> </div> <div style="text-align: center;"> </div> </div>

CUSTOM LCD INFORMATION	
DISPLAY MODE	<input type="checkbox"/> Positive Mode (Dark characters on light background) <input type="checkbox"/> Negative Mode (Light characters on black background)
POLARIZER	<input type="checkbox"/> Reflective <input type="checkbox"/> Transmissive <input type="checkbox"/> Transflective <input type="checkbox"/> Unattached
DRIVER INFORMATION	Operating Voltage : Minimum <input type="text"/> V                      Typical <input type="text"/> V                      Maximum <input type="text"/> V Frame Frequency : <input type="text"/> Hertz <input type="checkbox"/> Static <input type="checkbox"/> Multiplex : Duty 1/ <input type="text"/> , Bias 1/ <input type="text"/> I.C Driver : <input type="text"/>
CONNECTOR	<input type="checkbox"/> Elastomer <input type="checkbox"/> Pin                      Pin Type : <input type="text"/> Length : <input type="text"/> <input type="checkbox"/> Heat Seal
TEMPERATURE RANGE	Operating Temperature <input type="text"/> °C to <input type="text"/> °C Storage Temperature <input type="text"/> °C to <input type="text"/> °C
COMMENTS	

# STANDARD LCD ORDERING INFORMATION



DISPLAY P/N

POLARIZER TYPE

- 1. TRANSMISSIVE
- 2. TRANSFLECTIVE
- 4. REFLECTIVE

POLARIZER GRADE

- 1. NO POLARIZER
- 2. COMMERCIAL GRADE
- 3. HIGH STABILITY

POLARIZER COLOUR

- 0. SPECIAL
- 1. SILVER (STD)
- 2. GOLD
- 3. GREEN
- 4. RED
- 5. BLUE
- 6. PURPLE

POLARIZER MODE

- 1. SOLID SEGMENTS ON LIGHT BACKGROUND
- 2. CLEAR SEGMENTS ON DARK BACKGROUND

VIEWING ANGLE

- 1. 6:00 O'CLOCK
- 2. 12:00 O'CLOCK
- 3. SPECIAL

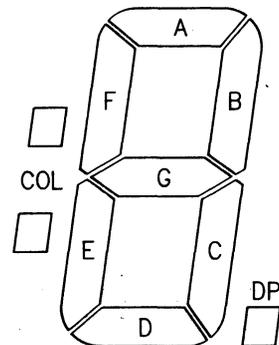
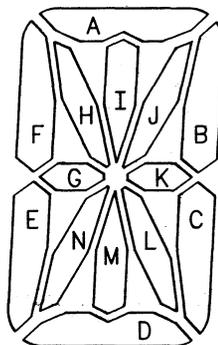
DIL PIN

- 0. STANDARD DIL PINS  
TYPE V50A, 0.250" LENGTH
- 1. ELASTOMER
- 2. SPECIAL DIL PINS/LENGTH
- 3. W/O PINS

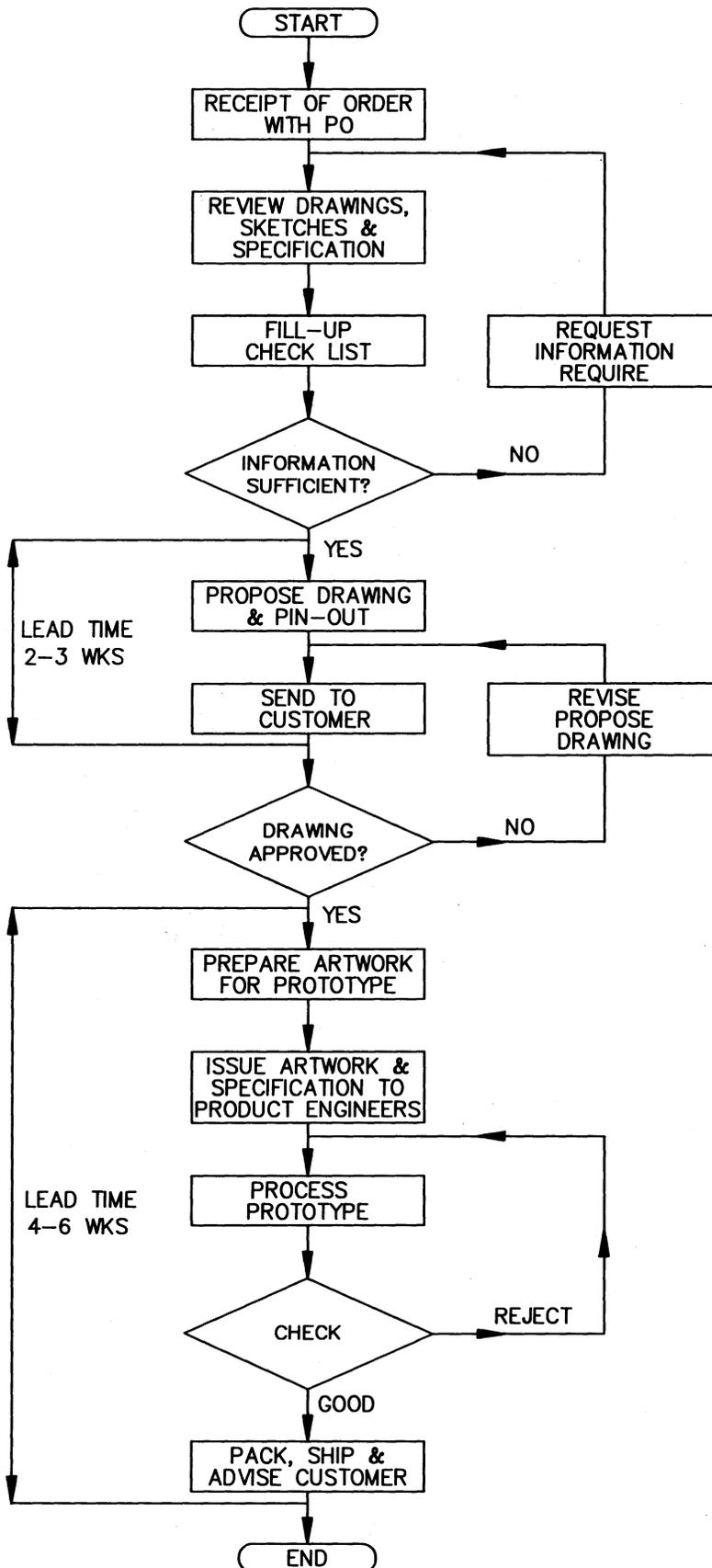
FLUID TYPE

- 2. WIDE TEMPERATURE  
OPERATING TEMP : -20°C TO 80°C  
STORAGE TEMP : -30°C TO 80°C
- 5. COMMERCIAL  
OPERATING TEMP : -10°C TO 55°C  
STORAGE TEMP : -20°C TO 65°C
- 6. HIGH TEMPERATURE  
OPERATING TEMP : -30°C TO 85°C  
STORAGE TEMP : -40°C TO 85°C

## SEGMENT NOTATION



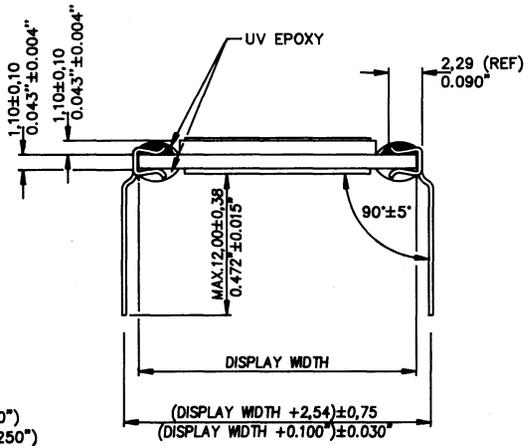
## FLOW CHART FOR LCD PROTOTYPE



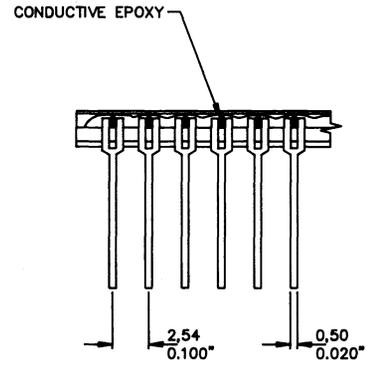
NOTE: DISPLAYS REQUIRING INK PRINTING, SPECIAL LIQUID CRYSTAL MATERIALS, SPECIAL PINS OR NON STANDARD PROCESSING MAY REQUIRE LONGER LEADTIME.

# DIP PACK LCD TERMINALS

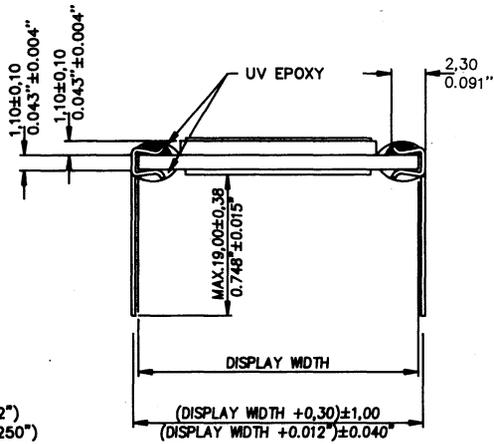
## TYPE V50A (STANDARD PIN)



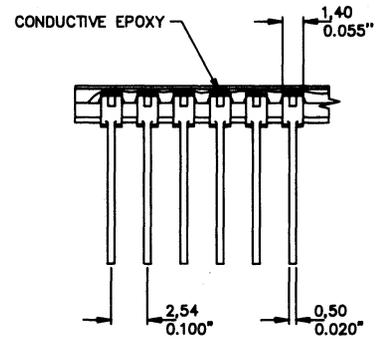
MATERIAL: PHOSPHOR BRONZE  
MATERIAL THICKNESS: 0.25 (0.010")  
STANDARD PIN LENGTH: 6.35 (0.250")



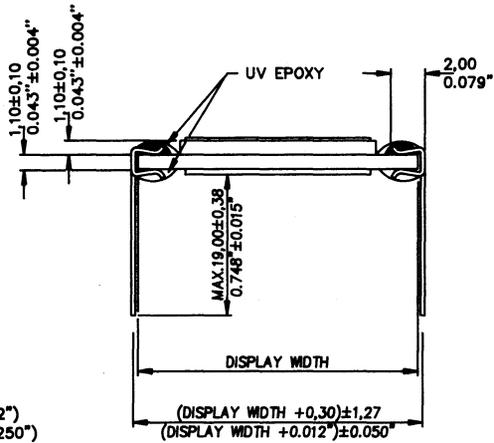
## TYPE V500



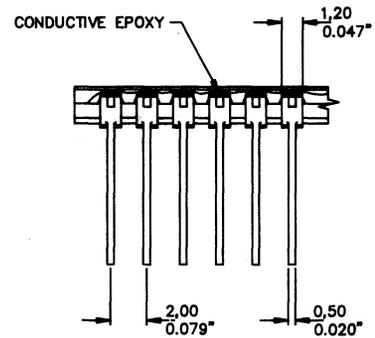
MATERIAL: PHOSPHOR BRONZE  
MATERIAL THICKNESS: 0.30 (0.012")  
STANDARD PIN LENGTH: 6.35 (0.250")



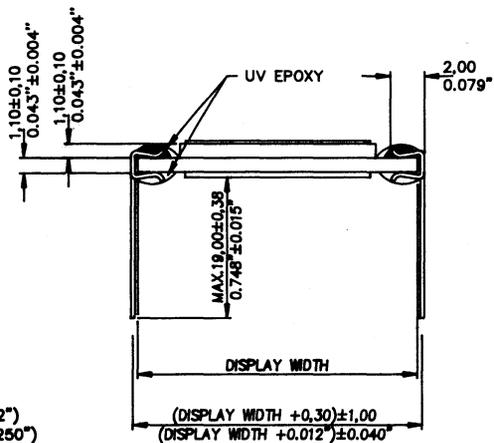
## TYPE V527



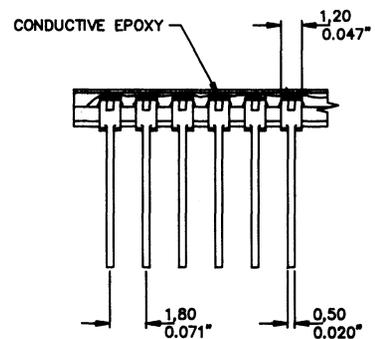
MATERIAL: PHOSPHOR BRONZE  
MATERIAL THICKNESS: 0.30 (0.012")  
STANDARD PIN LENGTH: 6.35 (0.250")



## TYPE V584

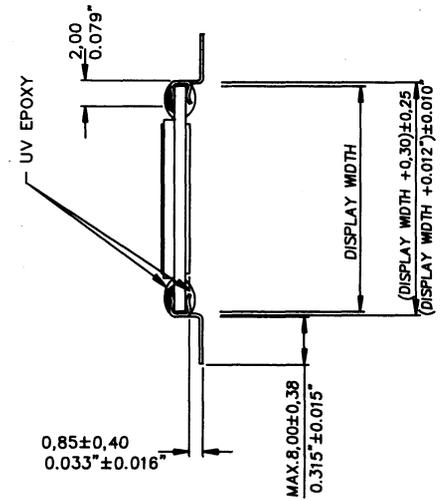
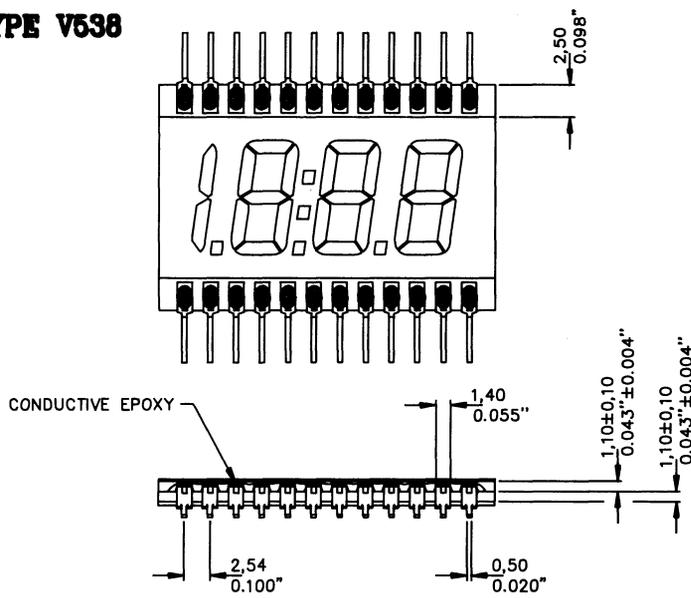


MATERIAL: PHOSPHOR BRONZE  
MATERIAL THICKNESS: 0.30 (0.012")  
STANDARD PIN LENGTH: 6.35 (0.250")



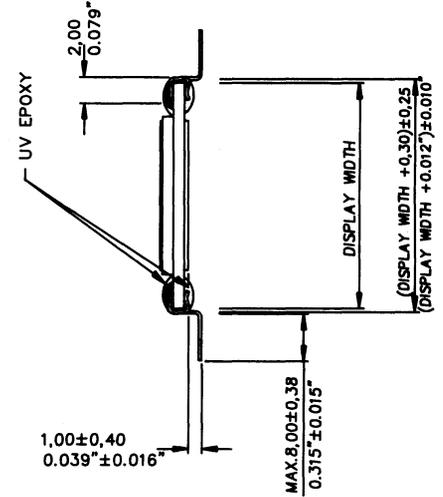
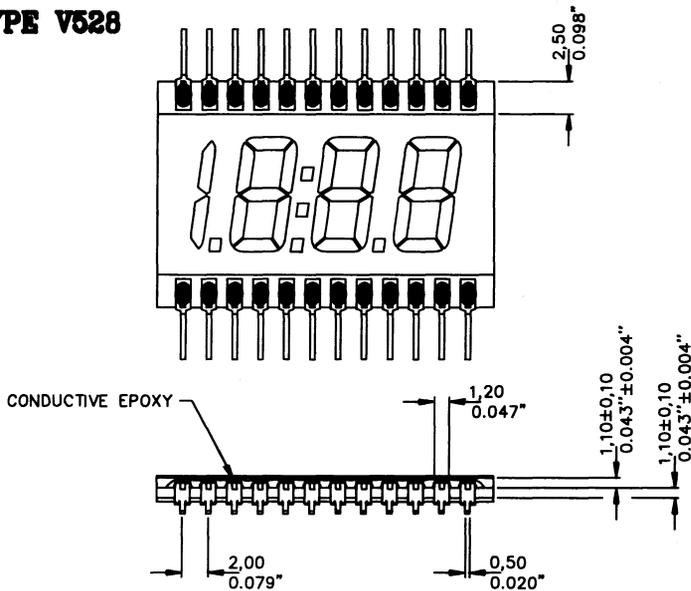
# FLAT PACK LCD TERMINALS

## TYPE V538



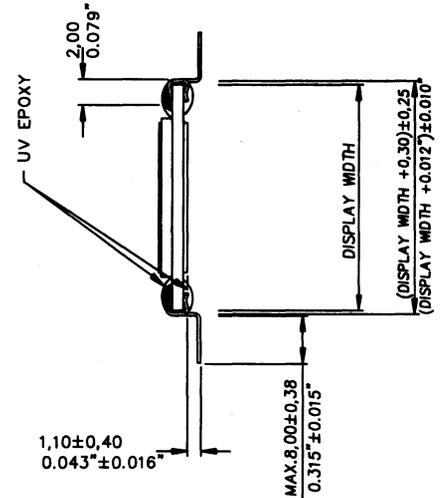
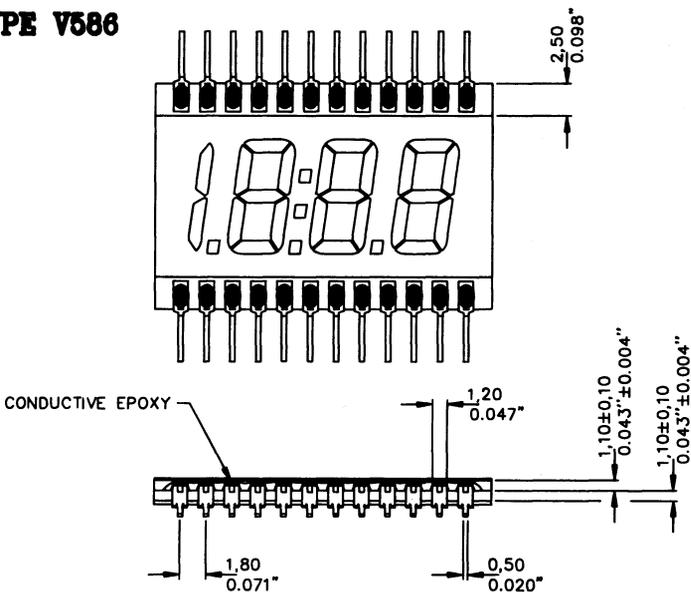
MATERIAL: PHOSPHOR BRONZE  
MATERIAL THICKNESS: 0.30 (0.012")

## TYPE V528



MATERIAL: PHOSPHOR BRONZE  
MATERIAL THICKNESS: 0.30 (0.012")

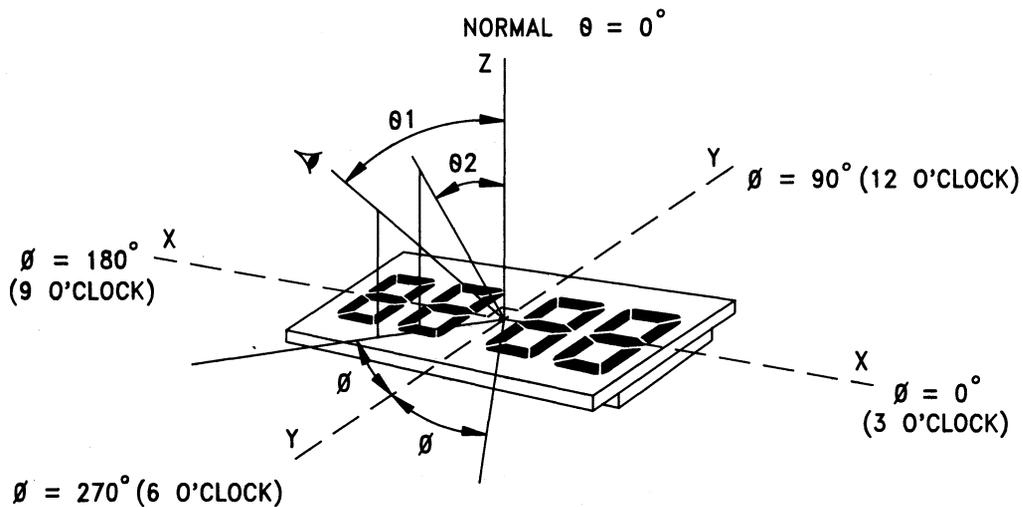
## TYPE V586



MATERIAL: PHOSPHOR BRONZE  
MATERIAL THICKNESS: 0.30 (0.012")

# ELECTRO-OPTICAL CHARACTERISTICS

## A) DEFINITION OF VIEWING ANGLE



$\theta$ : ANGLE MEASURED FROM NORMAL TO DIRECTION OF OBSERVATION.  
 $\phi$ : AZIMUTH ANGLE MEASURED COUNTER-CLOCKWISE FROM X-AXIS.

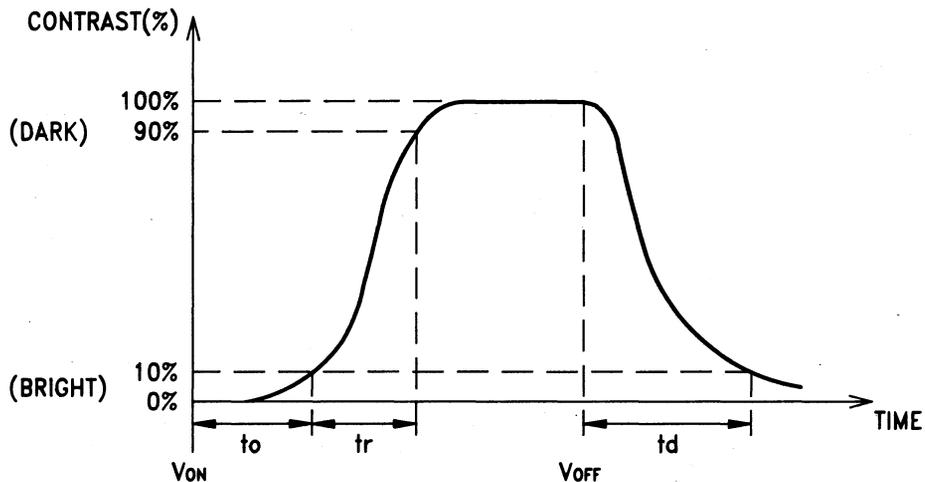
## B) CONTRAST RATIO

THE CONTRAST RATIO IS DEFINED TO BE THE RATIO OF TRANSMISSION OR REFLECTION OF A SYMBOL AT ITS 'ON' & 'OFF' STATE.

$$\text{CONTRAST RATIO} = \frac{\text{TRANSMISSION/REFLECTANCE AT OFF STATE}}{\text{TRANSMISSION/REFLECTANCE AT ON STATE}}$$

## C) RESPONSE TIME

AT SPECIFIC OPERATING VOLTAGE AND TEMPERATURE, THE TIMES MEASURED BY OBSERVING CONTRAST OR TRANSMISSION RATIO.



DELAY TIME  $t_o$ : MEASURED BETWEEN ZERO AND 10% WITH  $V_{on}$

RISE TIME  $t_r$ : MEASURED BETWEEN 10% AND 90% OF LCD SEGMENT MAXIMUM RESPONSE WITH  $V_{on}$

DECAY TIME  $t_d$ : WITH VOLTAGE SWITCHES TO ZERO AND THE INSTANT LCD SEGMENT REACHES 10% OF ITS MAXIMUM RESPONSE

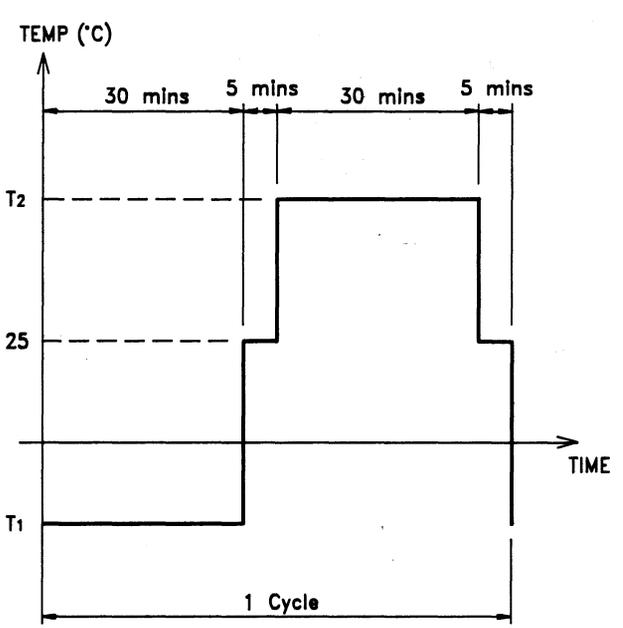
$T_{on}$ : TIME MEASURED BETWEEN THE INSTANT OPERATING VOLTAGE IS APPLIED TO DISPLAY AND THE INSTANT THE DISPLAY REACHES 90% OF ITS MAXIMUM RESPONSE

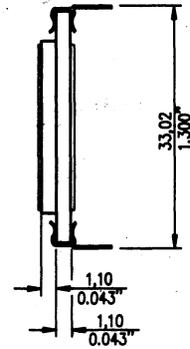
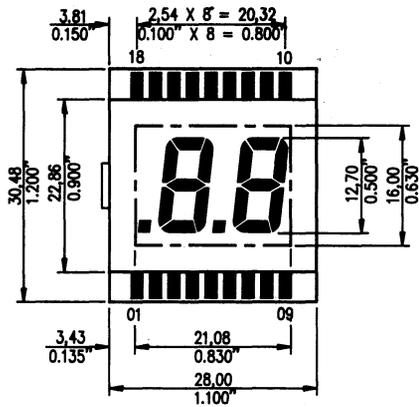
$T_{off}$ : TIME MEASURED BETWEEN THE INSTANT OPERATING VOLTAGE SWITCHES TO ZERO AND THE INSTANT THE DISPLAY REACHES 10% OF ITS MAXIMUM RESPONSE

ELECTRO-OPTICAL CHARACTERISTICS										
MUX LEVEL	ITEM	SYMBOL	TEST CONDITION	COMMERCIAL GRADE			WIDE TEMP			UNIT
				STANDARD VALUE			STANDARD VALUE			
				MIN	TYP	MAX	MIN	TYP	MAX	
STATIC	LIQUID CRYSTAL OPERATING VOLTAGE	$V_0$	25°C	2.0	3.0	-	3.0	5.0	-	V
	VISUAL ANGLE RANGE	$\theta_1-\theta_2$	CR=3	45	-	-	45	-	-	deg
	CONTRAST RATIO	CR	$\theta=0^\circ$ 25°C	15:1	-	-	15:1	-	-	-
	RISE TIME	$t_r$	f=64Hz $\theta=0^\circ$ , $V_0=Typ$	-	-	90	-	-	90	ms
	DECAY TIME	$t_d$	f=64Hz $\theta=0^\circ$ , $V_0=Typ$	-	-	120	-	-	120	ms
1/2 MUX	LIQUID CRYSTAL OPERATING VOLTAGE	$V_0$	25°C	2.4	3.0	3.5	4.5	5.0	5.5	V
	VISUAL ANGLE RANGE	$\theta_1-\theta_2$	CR=3	45	-	-	45	-	-	deg
	CONTRAST RATIO	CR	$\theta=0^\circ$ 25°C	13:1	-	-	13:1	-	-	-
	RISE TIME	$t_r$	f=64Hz $\theta=0^\circ$ , $V_0=Typ$	-	-	90	-	-	90	ms
	DECAY TIME	$t_d$	f=64Hz $\theta=0^\circ$ , $V_0=Typ$	-	-	120	-	-	120	ms
1/3 MUX	LIQUID CRYSTAL OPERATING VOLTAGE	$V_0$	25°C	2.6	3.0	3.3	4.7	5.0	5.5	V
	VISUAL ANGLE RANGE	$\theta_1-\theta_2$	CR=3	45	-	-	45	-	-	deg
	CONTRAST RATIO	CR	$\theta=0^\circ$ 25°C	10:1	-	-	10:1	-	-	-
	RISE TIME	$t_r$	f=64Hz $\theta=0^\circ$ , $V_0=Typ$	-	-	120	-	-	120	ms
	DECAY TIME	$t_d$	f=64Hz $\theta=0^\circ$ , $V_0=Typ$	-	-	150	-	-	150	ms
1/4 MUX	LIQUID CRYSTAL OPERATING VOLTAGE	$V_0$	25°C	2.7	3.0	3.3	4.8	5.0	5.5	V
	VISUAL ANGLE RANGE	$\theta_1-\theta_2$	CR=3	30	-	-	30	-	-	deg
	CONTRAST RATIO	CR	$\theta=0^\circ$ 25°C	10:1	-	-	10:1	-	-	-
	RISE TIME	$t_r$	f=64Hz $\theta=0^\circ$ , $V_0=Typ$	-	-	120	-	-	120	ms
	DECAY TIME	$t_d$	f=64Hz $\theta=0^\circ$ , $V_0=Typ$	-	-	150	-	-	150	ms
1/16 MUX	LIQUID CRYSTAL OPERATING VOLTAGE	$V_0$	25°C	3.8	3.9	4.0	4.4	4.5	4.6	V
	VISUAL ANGLE RANGE	$\theta_1-\theta_2$	CR=3	20	-	-	20	-	-	deg
	CONTRAST RATIO	CR	$\theta=0^\circ$ 25°C	6:1	-	-	6:1	-	-	-
	RISE TIME	$t_r$	f=64Hz $\theta=0^\circ$ , $V_0=Typ$	-	-	240	-	-	240	ms
	DECAY TIME	$t_d$	f=64Hz $\theta=0^\circ$ , $V_0=Typ$	-	-	240	-	-	240	ms

NOTE: (1) THE ABOVE DATA ARE RECOMMENDED VALUE  
 (2) MANY OTHER LIQUIDS<sub>1</sub> AVAILABLE ON REQUEST

## TYPICAL ENVIRONMENTAL TEST SPECIFICATIONS

RELIABILITY GRADE PARAMETERS	COMMERCIAL	WIDE RELIABILITY	HIGH RELIABILITY	UNITS
<u>TEMPERATURE/HUMIDITY</u> (A) WITHOUT POLARIZER 80°C, 95% RELATIVE HUMIDITY 60°C, 70% RELATIVE HUMIDITY (B) POLARIZER GLUED 60°C, 70% RELATIVE HUMIDITY 60°C, 90% RELATIVE HUMIDITY	>150 >500	>300 >2,000	>300 >2,000	HR HR HR HR
<u>HIGH TEMPERATURE</u> (A) WITH POLARIZER 90°C 60°C	N.A. >200	>200 >500	>200 >500	HR HR
<u>TEMPERATURE CYCLING</u>  <p style="text-align: center;">TOTAL : 20 CYCLES</p>	T <sub>1</sub> = -10 T <sub>2</sub> = 60	T <sub>1</sub> = -30 T <sub>2</sub> = 85	T <sub>1</sub> = -40 T <sub>2</sub> = 85	
LOW PRESSURE 1 PA	30	100	100	HR
EXPECTED LIFE	100,000			HR

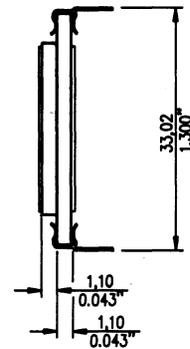
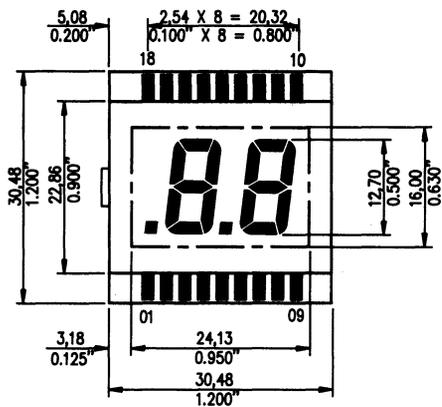


I1045

I1027

FILL-END = MAX 6,00 X 1,00 (0.236" X 0.039")  
 DRIVER = OKI MSM58292, HD61603

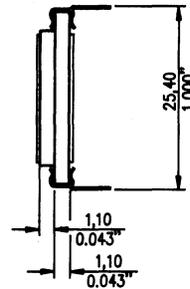
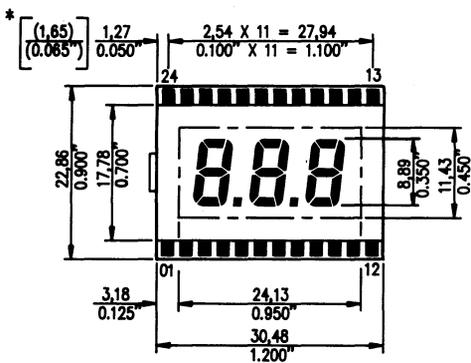
SEG.	BP	DP1	1E	1D	1C	DP2	2E	2D	2C	2B	2A	2F	2G	1B	1A	1F	1G	BP	
PIN#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	



I1075

FILL-END = MAX 6,00 X 1,00 (0.236" X 0.039")  
 DRIVER = OKI MSM58292, HD61603

SEG.	BP	DP1	1E	1D	1C	DP2	2E	2D	2C	2B	2A	2F	2G	1B	1A	1F	1G	NC	
PIN#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	



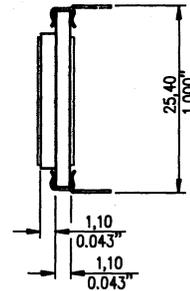
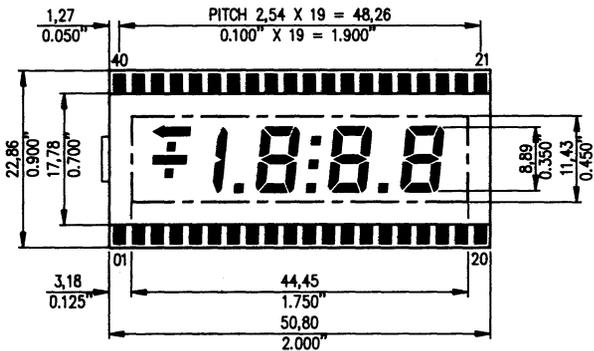
I1059

I1086

FILL-END = MAX 6,00 X 1,00 (0.236" X 0.039")  
 DRIVER = OKI MSM58292, HD61603

SEG.	1E	1D	1C	DP1	2E	2D	2C	DP2	3E	3D	3C	3B	A3	3F	3G	2B	2A	2F	2G	1B	1A	1F	1G	BP	
PIN#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	

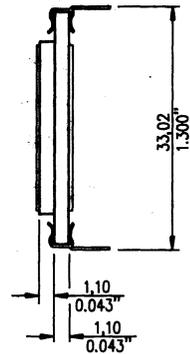
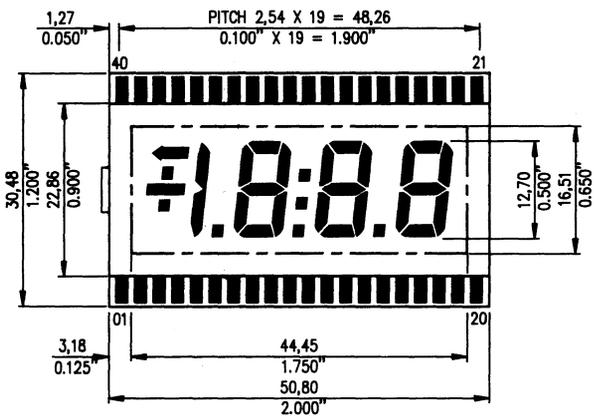
\* DIM. FOR I1086



I1061

FILL-END = MAX 10,00 X 1,00 (0.394" X 0.039")  
 DRIVER = INTERSIL ICL7106, TELEDYNE 7106

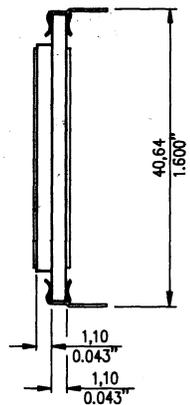
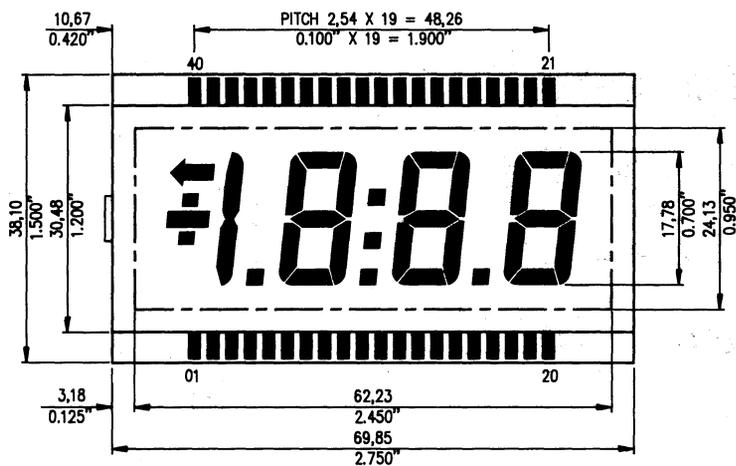
SEG.	3A	3F	3G	2B	2A	2F	2G	COL	1B	1A	1F	1G	NC	NC	NC	NC	NC	←	:	BP
PIN#	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
SEG.	BP	-	K	NC	NC	NC	NC	DP1	1E	1D	1C	DP2	2E	2D	2C	DP3	3E	3D	3C	3B
PIN#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



I1048

FILL-END = MAX 10,00 X 1,00 (0.394" X 0.039")  
 DRIVER = INTERSIL ICL7106, TELEDYNE 7106

SEG.	3A	3F	3G	2B	2A	2F	2G	COL	1B	1A	1F	1G	NC	NC	NC	NC	NC	←	:	BP
PIN#	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
SEG.	BP	-	K	NC	NC	NC	NC	DP1	1E	1D	1C	DP2	2E	2D	2C	DP3	3E	3D	3C	3B
PIN#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20



I1083

FILL-END = MAX 10,00 X 1,00 (0.394" X 0.039")  
 DRIVER = INTERSIL ICL7106, TELEDYNE 7106

SEG.	3A	3F	3G	2B	2A	2F	2G	COL	1B	1A	1F	1G	NC	NC	NC	NC	NC	←	:	BP
PIN#	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
SEG.	BP	-	K	NC	NC	NC	NC	DP1	1E	1D	1C	DP2	2E	2D	2C	DP3	3E	3D	3C	3B
PIN#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20