





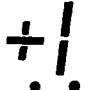















LED NUMERIC SINGLE DIGIT DISPLAYS



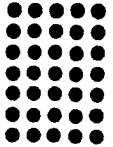
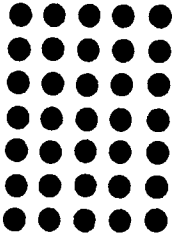
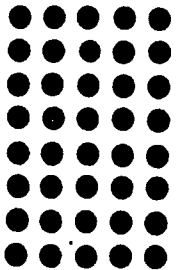
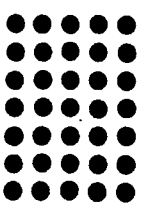
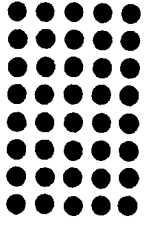
ACTUAL DIGIT HEIGHT	EMITTED COLOR					COMMON CATHODE or COMMON ANODE	PIN CONNECTION & PACKAGE
	GaAsp RED	GREEN	ORANGE	Gap RED	HI-EFFI RED		
0.3 inch (7.62 mm) 	CM1-3011 CM1-3021	CM1-3012 CM1-3022	CM1-3013 CM1-3023	CM1-3014 CM1-3024	CM1-3015 CM1-3025	C. C. C. A.	FIG. 1
0.3 inch (7.62 mm) 	CM0-3011 CM0-3021	CM0-3012 CM0-3022	CM0-3013 CM0-3023	CM0-3014 CM0-3024	CM0-3015 CM0-3025	C. C. C. A.	FIG. 2
0.36 inch (9.14 mm) 	CM1-3611 CM1-3621	CM1-3612 CM1-3622	CM1-3613 CM1-3623	CM1-3614 CM1-3624	CM1-3615 CM1-3625	C. C. C. A.	FIG. 3
0.36 inch (9.14 mm) 	CM1-3611 CM0-3621	CM0-3612 CM0-3622	CM0-3613 CM0-3623	CM0-3614 CM0-3624	CM0-3615 CM0-3625	C. C. C. A.	FIG. 4
0.4 inch (10.16 mm) 	CM1-4011 CM1-4021	CM1-4012 CM1-4022	CM1-4013 CM1-4023	CM1-4014 CM1-4024	CM1-4015 CM1-4025	C. C. C. A.	FIG. 5
0.43 inch (10.92 mm) 	CM1-4311 CM1-4321	CM1-4312 CM1-4322	CM1-4313 CM1-4323	CM1-4314 CM1-4324	CM1-4315 CM1-4325	C. C. C. A.	FIG. 6
0.43 inch (10.92 mm) 	CM0-4311 CM0-4321	CM0-4312 CM0-4322	CM0-4313 CM0-4323	CM0-4314 CM0-4324	CM0-4315 CM0-4325	C. C. C. A.	FIG. 7
0.5 inch (12.70 mm) 	CM1-5011 CM1-5021	CM1-5012 CM1-5022	CM1-5013 CM1-5023	CM1-5014 CM1-5024	CM1-5015 CM1-5025	C. C. C. A.	FIG. 8
0.56 inch (14.22 mm) 	CM1-5611 CM1-5621	CM1-5612 CM1-5622	CM1-5613 CM1-5623	CM1-5614 CM1-5624	CM1-5615 CM1-5625	C. C. C. A.	FIG. 9
0.56 inch (14.22 mm) 	CM0-5611 CM0-5621	CM0-5612 CM0-5622	CM0-5613 CM0-5623	CM0-5614 CM0-5624	CM0-5615 CM0-5625	C. C. C. A.	FIG. 10
0.6 inch (15.24 mm) 	CM1-6011 CM1-6021	CM1-6012 CM1-6022	CM1-6013 CM1-6023	CM1-6014 CM1-6024	CM1-6015 CM1-6025	C. C. C. A.	FIG. 11

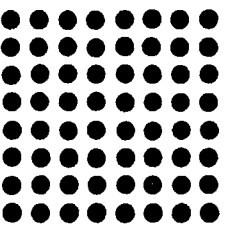


SINGLE DIGIT & DUAL DIGIT DISPLAYS

T-41-35

ACTUAL DIGIT HEIGHT	EMITTED COLOR					COMMON CATHODE or COMMON ANODE	PIN CONNECTION & PACKAGE
	GaAsp RED	GREEN	ORANGE	Gap RED	HI-EFFI RED		
0.8 inch (20.32 mm) 	CM1-8011 CM1-8021	CM1-8012 CM1-8022	CM1-8013 CM1-8023	CM1-8014 CM1-8024	CM1-8015 CM1-8025	T-41-31 C. C. C. A.	FIG. 12
1.0 inch (25.40 mm) 	CM1-10011 CM1-10021	CM1-10012 CM1-10022	CM1-10013 CM1-10023	CM1-10014 CM1-10024	CM1-10015 CM1-10025	C. C. C. A.	FIG. 13
1.02 inch (26.00 mm) 	CM1-10211 CM1-10221	CM1-10212 CM1-10222	CM1-10213 CM1-10223	CM1-10214 CM1-10224	CM1-10215 CM1-10225	C. C. C. A.	FIG. 14
2.30 inch (58.42 mm) 	CM1-23011 CM1-23021	CM1-23012 CM1-23022	CM1-23013 CM1-23023	CM1-23014 CM1-23024	CM1-23015 CM1-23025	C. C. C. A.	FIG. 15
0.3 inch (7.62 mm) 	CM2-3011 CM2-3021	CM2-3012 CM2-3022	CM2-3013 CM2-3023	CM2-3014 CM2-3024	CM2-3015 CM2-3025	C. C. C. A.	FIG. 16
0.4 inch (10.16 mm) 	CM2-4011 CM2-4021	CM2-4012 CM2-4022	CM2-4013 CM2-4023	CM2-4014 CM2-4024	CM2-4015 CM2-4025	C. C. C. A.	FIG. 17
0.5 inch (12.70 mm) 	CM2-5011 CM2-5021	CM2-5012 CM2-5022	CM2-5013 CM2-5023	CM2-5014 CM2-5024	CM2-5015 CM2-5025	C. C. C. A.	FIG. 18
0.54 inch (13.80 mm) 	CM2-5411 CM2-5421	CM2-5412 CM2-5422	CM2-5413 CM2-5423	CM2-5414 CM2-5424	CM2-5415 CM2-5425	C. C. C. A.	FIG. 19
0.56 inch (14.22 mm) 	CM2-5611 CM2-5621	CM2-5612 CM2-5622	CM2-5613 CM2-5623	CM2-5614 CM2-5624	CM2-5615 CM2-5625	C. C. C. A.	FIG. 20

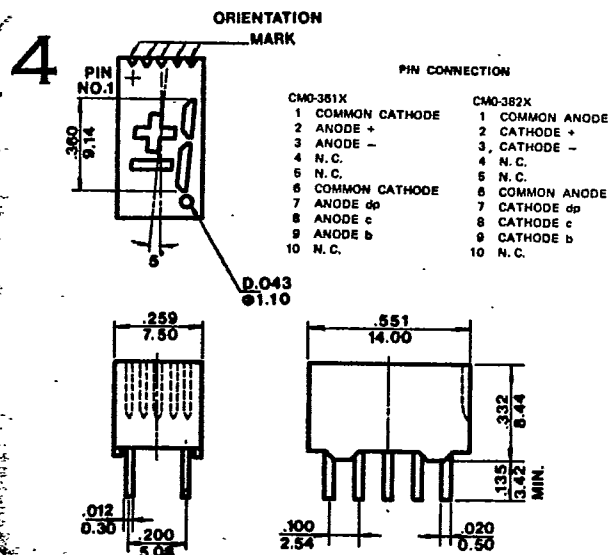
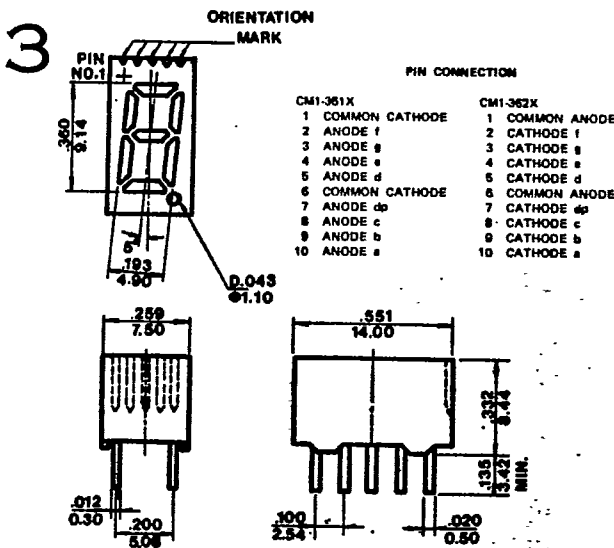
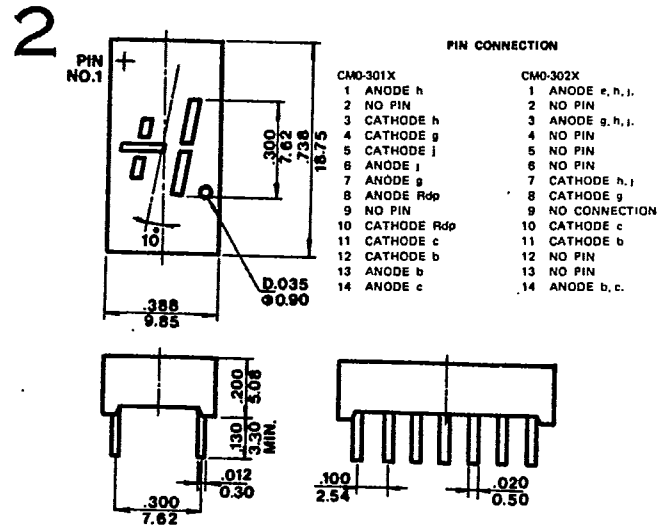
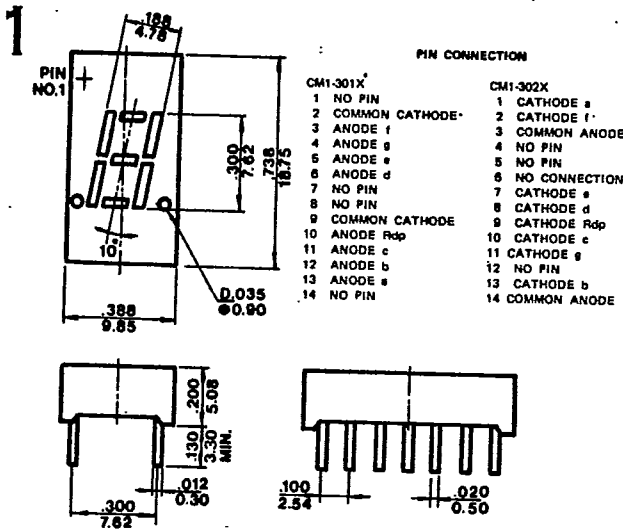
THREE FOUR DIGIT & DOT MATRIX DISPLAYS

ACTUAL DIGIT HEIGHT	EMITTED COLOR T-41-31					COMMON CATHODE or COMMON ANODE	PIN CONNECTION & PACKAGE
	GaAsp RED	GREEN	ORANGE	Gap RED	HI-EFFI RED		
0.56 inch (14.22 mm) 	CM3-5611 CM3-5651 CM3-5621 CM3-5661	CM3-5612 CM3-5652 CM3-5622 CM3-5662	CM3-5613 CM3-5653 CM3-5623 CM3-5663	CM3-5614 CM3-5654 CM3-5624 CM3-5664	CM3-5615 CM3-5655 CM3-5625 CM3-5665	C. C. C. C. C. A. C. A.	FIG. 21
0.56 inch (14.22 mm)  (SCALE 1/2)	CM4-5611 CM4-5651 CM4-5621 CM4-5661	CM4-5612 CM4-5652 CM4-5622 CM4-5662	CM4-5613 CM4-5653 CM4-5623 CM4-5663	CM4-5614 CM4-5654 CM4-5624 CM4-5664	CM4-5615 CM4-5655 CM4-5625 CM4-5665	C. C. C. C. C. A. C. A.	FIG. 22
0.7 inch (17.78 mm) 	CMD-25711 CMD-25721	CMD-25712 CMD-25722	CMD-25713 CMD-25723	CMD-25714 CMD-25724	CMD-25715 CMD-25725	C. C. C. A.	FIG. 23
1.2 inch (30.48 mm) 	CMD-35711 CMD-35721	CMD-35712 CMD-35722	CMD-35713 CMD-35723	CMD-35714 CMD-35724	CMD-35715 CMD-35725	C. C. C. A.	FIG. 24
1.4 inch (35.56 mm) 	CMD-35811 CMD-35821	CMD-35812 CMD-35822	CMD-35813 CMD-35823	CMD-35814 CMD-35824	CMD-35815 CMD-35825	C. C. C. A.	FIG. 25
2.0 inch (50.8 mm)  (SCALE 1/2)	CMD-55711 CMD-55721	CMD-55712 CMD-55722	CMD-55713 CMD-55723	CMD-55714 CMD-55724	CMD-55715 CMD-55725	C. C. C. A.	FIG. 26
2.3 inch (58.42 mm)  (SCALE 1/2)	CMD-55811 CMD-55821	CMD-55812 CMD-55822	CMD-55813 CMD-55823	CMD-55814 CMD-55824	CMD-55815 CMD-55825	C. C. C. A.	FIG. 27

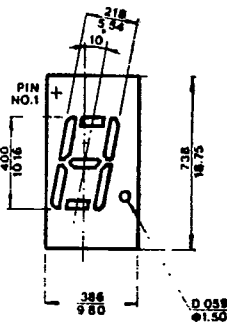
ACTUAL DIGIT HEIGHT	EMITTED COLOR					COMMON CATHODE or COMMON ANODE	PIN CONNECTION & PACKAGE
	GaAsp RED	GREEN	ORANGE	Gap RED	HI-EFFI RED		
2.3 inch (58.42 mm)  (SCALE 1/2)	CMD-58811 CMD-58821	CMD-58812 CMD-58822	CMD-58813 CMD-58823	CMD-58814 CMD-58824	CMD-58815 CMD-58825	C. C. C. A.	FIG. 28
LIGHT BAR 	CML-1001	CML-1002	CML-1003	CML-1004	CML-1005		FIG. 29
10 BAR GRAPH ARRAY  (SCALE 1/2)	CML-10001	CML-10002	CML-10003	CML-10004	CML-10005		FIG. 30

PACKAGE DIMENSIONS

Note: All Dimension Are In $\frac{\text{Inches,}}{\text{Millimeters}}$ Tolerance Is $\frac{0.010''}{(0.25 \text{ mm})}$ Unless Otherwise Noted.

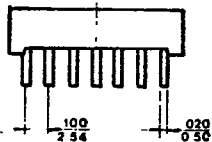
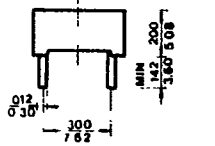


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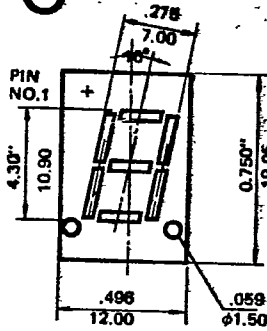


PIN CONNECTION

- | | | | |
|-------------------|------------------|-----------------|-----------------|
| CM1-401X | 1 ANODE f | CM1-402X | 1 CATHODE a |
| 2 ANODE g | 2 ANODE g | 2 CATHODE f | 2 CATHODE f |
| 3 NO PIN | 3 COMMON CATHODE | 3 COMMON ANODE | 3 COMMON ANODE |
| 4 COMMON CATHODE | 4 NO PIN | 4 NO PIN | 4 NO PIN |
| 5 NO PIN | 5 NO PIN | 5 NO PIN | 5 NO PIN |
| 6 ANODE e | 6 NO CONNECTION | 6 NO CONNECTION | 6 NO CONNECTION |
| 7 ANODE d | 7 CATHODE e | 7 CATHODE e | 7 CATHODE e |
| 8 ANODE c | 8 CATHODE d | 8 CATHODE d | 8 CATHODE d |
| 9 ANODE b | 9 CATHODE c | 9 CATHODE c | 9 CATHODE c |
| 10 NO PIN | 10 CATHODE b | 10 CATHODE b | 10 CATHODE b |
| 11 NO CONNECTION | 11 CATHODE a | 11 CATHODE a | 11 CATHODE a |
| 12 COMMON CATHODE | 12 NO PIN | 12 NO PIN | 12 NO PIN |
| 13 ANODE b | 13 CATHODE b | 13 CATHODE b | 13 CATHODE b |
| 14 ANODE a | 14 COMMON ANODE | 14 COMMON ANODE | 14 COMMON ANODE |



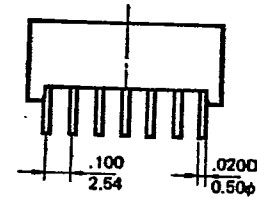
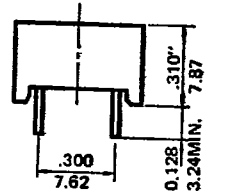
6



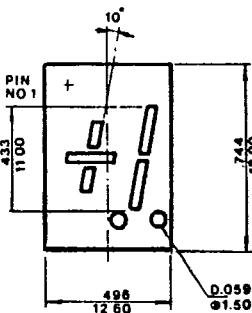
T-41-35
T-41-31

PIN CONNECTION

- | | | | |
|-------------------|------------------|-----------------|-----------------|
| CM1-431X | 1 ANODE e | CM1-432X | 1 CATHODE a |
| 2 ANODE f | 2 COMMON CATHODE | 2 CATHODE f | 2 CATHODE f |
| 3 COMMON CATHODE | 3 NO PIN | 3 COMMON ANODE | 3 COMMON ANODE |
| 4 NO PIN | 4 NO PIN | 4 NO PIN | 4 NO PIN |
| 5 NO PIN | 5 ANODE Ldp | 5 NO PIN | 5 NO PIN |
| 6 ANODE Ldp | 6 ANODE e | 6 CATHODE Ldp | 6 CATHODE Ldp |
| 7 ANODE e | 7 ANODE d | 7 CATHODE e | 7 CATHODE e |
| 8 ANODE d | 8 ANODE Rdp | 8 CATHODE d | 8 CATHODE d |
| 9 ANODE Rdp | 9 CATHODE Rdp | 9 CATHODE Rdp | 9 CATHODE Rdp |
| 10 ANODE c | 10 CATHODE c | 10 CATHODE c | 10 CATHODE c |
| 11 ANODE b | 11 ANODE b | 11 CATHODE b | 11 CATHODE b |
| 12 NO PIN | 12 NO PIN | 12 NO PIN | 12 NO PIN |
| 13 ANODE b | 13 CATHODE b | 13 CATHODE b | 13 CATHODE b |
| 14 COMMON CATHODE | 14 COMMON ANODE | 14 COMMON ANODE | 14 COMMON ANODE |

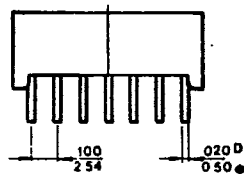
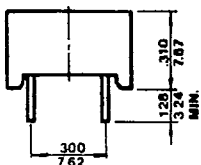


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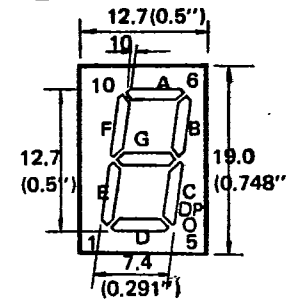


PIN CONNECTION

- | | |
|-------------------|--------------|
| CM0-431X/CM0-432X | 1 CATHODE h |
| 2 ANODE h | 2 ANODE h |
| 3 NO PIN | 3 NO PIN |
| 4 CATHODE g | 4 CATHODE g |
| 5 CATHODE j | 5 CATHODE j |
| 6 ANODE i | 6 ANODE i |
| 7 ANODE g | 7 ANODE g |
| 8 ANODE dp | 8 ANODE dp |
| 9 CATHODE dp | 9 CATHODE dp |
| 10 CATHODE c | 10 CATHODE c |
| 11 CATHODE b | 11 CATHODE b |
| 12 NO PIN | 12 NO PIN |
| 13 ANODE b | 13 ANODE b |
| 14 ANODE c | 14 ANODE c |

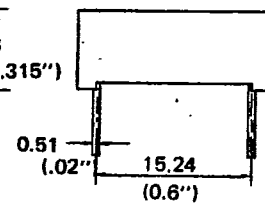
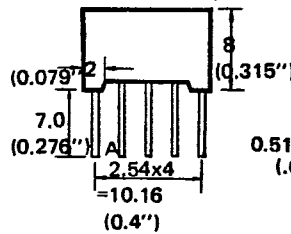


8

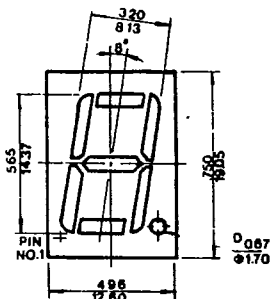


PIN CONNECTION

- | | | | |
|------------------|------------------|----------------|----------------|
| CM1-501X | 1 ANODE e | CM1-502X | 1 CATHODE e |
| 2 ANODE d | 2 COMMON CATHODE | 2 CATHODE d | 2 CATHODE d |
| 3 COMMON CATHODE | 4 ANODE c | 3 COMMON ANODE | 3 COMMON ANODE |
| 4 ANODE c | 5 ANODE dp | 4 CATHODE c | 4 CATHODE c |
| 5 ANODE dp | 6 ANODE b | 5 CATHODE dp | 5 CATHODE dp |
| 6 ANODE b | 7 ANODE a | 6 CATHODE b | 6 CATHODE b |
| 7 ANODE a | 8 COMMON CATHODE | 7 CATHODE a | 7 CATHODE a |
| 8 COMMON CATHODE | 9 ANODE f | 8 COMMON ANODE | 8 COMMON ANODE |
| 9 ANODE f | 10 ANODE g | 9 CATHODE f | 9 CATHODE f |
| 10 ANODE g | | 10 CATHODE g | 10 CATHODE g |

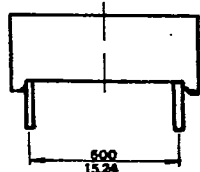
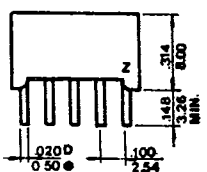


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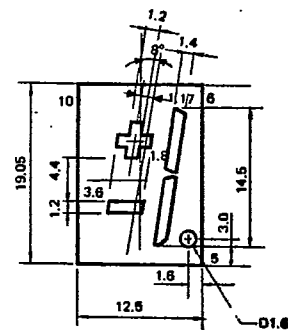


PIN CONNECTION

- | | | | |
|------------------|------------------|----------------|----------------|
| CM1-561X | 1 ANODE e | CM1-562X | 1 CATHODE e |
| 2 ANODE d | 2 COMMON CATHODE | 2 CATHODE d | 2 CATHODE d |
| 3 COMMON CATHODE | 4 ANODE c | 3 COMMON ANODE | 3 COMMON ANODE |
| 4 ANODE c | 5 ANODE dp | 4 CATHODE c | 4 CATHODE c |
| 5 ANODE dp | 6 ANODE b | 5 CATHODE dp | 5 CATHODE dp |
| 6 ANODE b | 7 ANODE a | 6 CATHODE b | 6 CATHODE b |
| 7 ANODE a | 8 COMMON CATHODE | 7 CATHODE a | 7 CATHODE a |
| 8 COMMON CATHODE | 9 ANODE f | 8 COMMON ANODE | 8 COMMON ANODE |
| 9 ANODE f | 10 ANODE g | 9 CATHODE f | 9 CATHODE f |
| 10 ANODE g | | 10 CATHODE g | 10 CATHODE g |

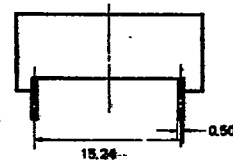
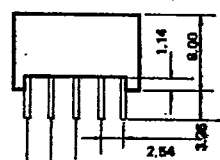


10

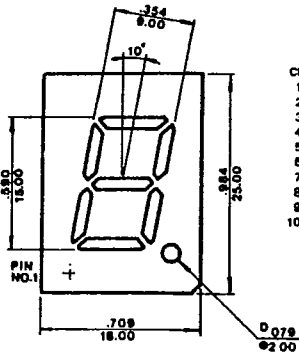


PIN CONNECTION

- | | | | |
|------------------|------------------|------------------|------------------|
| CM0-561X | 1 ANODE c | CM0-562X | 1 CATHODE c |
| 2 ANODE c,d | 3 CATHODE b | 2 ANODE c,d | 2 ANODE c,d |
| 3 CATHODE b | 4 CATHODE a,b,dp | 3 COMMON ANODE | 3 COMMON ANODE |
| 4 CATHODE a,b,dp | 5 ANODE dp | 4 ANODE a,b,dp | 4 ANODE a,b,dp |
| 5 ANODE dp | 6 ANODE a | 5 CATHODE dp | 5 CATHODE dp |
| 6 ANODE a | 7 CATHODE a,b,dp | 6 CATHODE a | 6 CATHODE a |
| 7 CATHODE a,b,dp | 8 CATHODE c,d | 7 ANODE a,b,dp | 7 ANODE a,b,dp |
| 8 CATHODE c,d | 9 ANODE d | 8 ANODE c,d | 8 ANODE c,d |
| 9 ANODE d | 10 NO CONNECTION | 9 CATHODE d | 9 CATHODE d |
| 10 NO CONNECTION | | 10 NO CONNECTION | 10 NO CONNECTION |

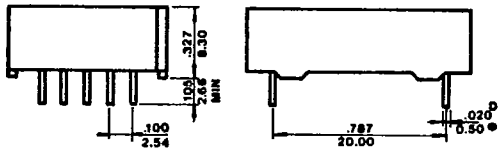


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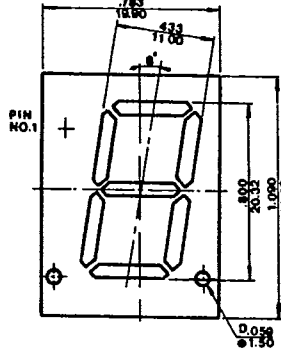


PIN CONNECTION

CM1-501X	CM1-602X
1 ANODE e	1 CATHODE e
2 ANODE d	2 CATHODE d
3 ANODE c	3 CATHODE c
4 ANODE dp	4 CATHODE dp
5 COMMON CATHODE	5 COMMON ANODE
6 ANODE b	6 CATHODE b
7 ANODE a	7 CATHODE a
8 ANODE g	8 CATHODE g
9 ANODE f	9 CATHODE f
10 COMMON CATHODE	10 COMMON ANODE

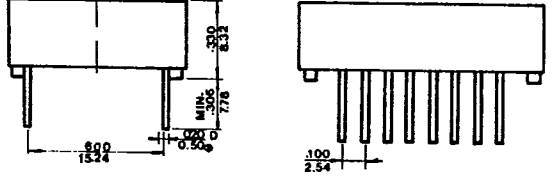


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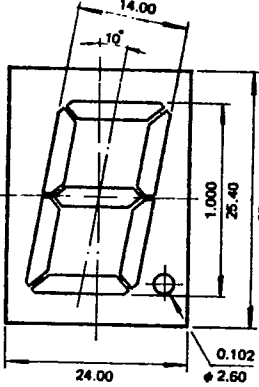


PIN CONNECTION T-41-31

CM1-801X	CM1-802X
1 NO PIN	1 NO PIN
2 ANODE a	2 CATHODE a
3 ANODE f	3 CATHODE f
4 COMMON CATHODE	4 COMMON ANODE
5 ANODE e	5 CATHODE e
6 COMMON CATHODE	6 COMMON ANODE
7 ANODE Ldp	7 CATHODE Ldp
8 NO PIN	8 NO PIN
9 NO PIN	9 NO PIN
10 ANODE Rdp	10 CATHODE Rdp
11 ANODE d	11 CATHODE d
12 COMMON CATHODE	12 COMMON ANODE
13 ANODE c	13 CATHODE c
14 ANODE g	14 CATHODE g
15 ANODE b	15 CATHODE b
16 NO PIN	16 NO PIN
17 COMMON CATHODE	17 COMMON ANODE
18 NO PIN	18 NO PIN

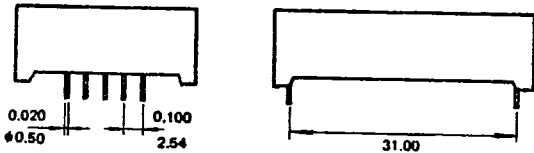


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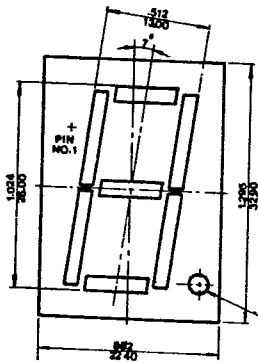


PIN CONNECTION

CM1-1001K	CM1-1002X
1 ANODE e	1 CATHODE e
2 ANODE d	2 CATHODE d
3 COMMON CATHODE	3 COMMON ANODE
4 ANODE c	4 CATHODE c
5 ANODE dp	5 CATHODE dp
6 ANODE b	6 CATHODE b
7 ANODE a	7 CATHODE a
8 COMMON CATHODE	8 COMMON ANODE
9 ANODE f	9 CATHODE f
10 ANODE g	10 CATHODE g

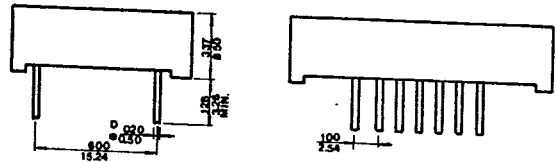


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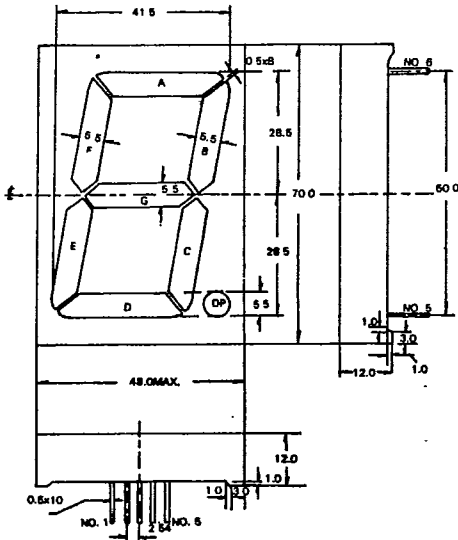


PIN CONNECTION

CM1-1021X	CM1-1022X
1 ANODE e	1 CATHODE a
2 ANODE f	2 CATHODE f
3 COMMON CATHODE	3 COMMON ANODE
4 NO PIN	4 NO PIN
5 NO PIN	5 NO PIN
6 COMMON CATHODE	6 COMMON ANODE
7 ANODE e	7 CATHODE e
8 ANODE d	8 CATHODE d
9 ANODE dp	9 CATHODE dp
10 ANODE c	10 CATHODE c
11 ANODE g	11 CATHODE g
12 NO PIN	12 NO PIN
13 ANODE b	13 CATHODE b
14 COMMON CATHODE	14 COMMON ANODE



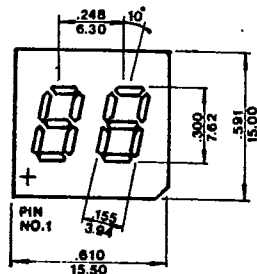
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PIN CONNECTION

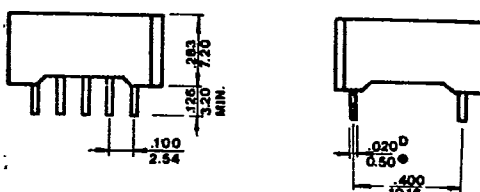
CM1-2301X	CM1-2302X
COMMON CATHODE	COMMON ANODE
PIN NO FUNCTION	PIN NO FUNCTION
1 COMMON CATHODE	1 COMMON ANODE
2 ANODE e	2 CATHODE e
3 ANODE d	3 CATHODE d
4 ANODE c	4 CATHODE c
5 COMMON CATHODE	5 COMMON ANODE
6 ANODE b	6 CATHODE b
7 ANODE a	7 CATHODE a
8 ANODE dp	8 CATHODE dp
9 ANODE f	9 CATHODE f
10 ANODE g	10 CATHODE g

16

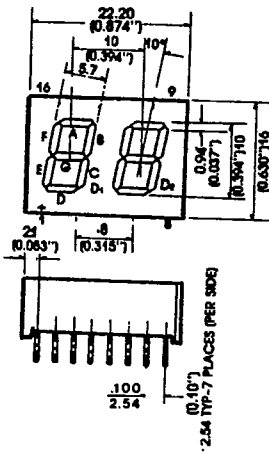


PIN CONNECTION

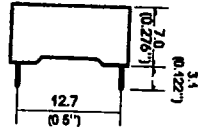
CM2-301X	CM2-302X
1 ANODE g	1 CATHODE g
2 NO PIN	2 NO PIN
3 ANODE a	3 CATHODE a
4 ANODE f	4 CATHODE f
5 D ₂ COMMON CATHODE	10 D ₂ COMMON ANODE
6 ANODE d	6 CATHODE d
7 ANODE e	7 CATHODE e
8 ANODE c	8 CATHODE c
9 ANODE b	9 CATHODE b
10 D, COMMON CATHODE	10 D, COMMON CATHODE



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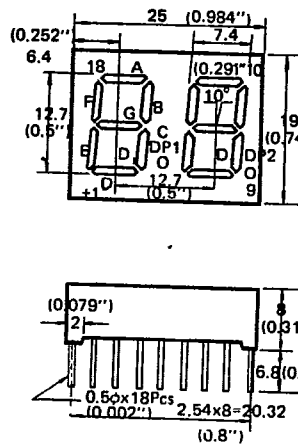


- PIN CONNECTION**
- | | | | |
|---------------------|-------------------|-------------------|-----------------|
| CM2-401X | 1 D, ANODE c | CM2-402X | 1 D, CATHODE c |
| 2 D, ANODE e | 2 D, CATHODE e | 2 D, CATHODE e | 2 D, CATHODE d |
| 3 D, ANODE d | 3 D, CATHODE d | 3 D, CATHODE d | 3 D, CATHODE c |
| 4 D, COMMON CATHODE | 4 D, COMMON ANODE | 4 D, COMMON ANODE | 4 D, CATHODE dp |
| 5 D, COMMON CATHODE | 5 D, COMMON ANODE | 5 D, COMMON ANODE | 5 D, ANODE dp |
| 6 D, ANODE d | 6 D, CATHODE d | 6 D, CATHODE d | 6 D, ANODE d |
| 7 D, ANODE e | 7 D, CATHODE e | 7 D, CATHODE e | 7 D, ANODE e |
| 8 D, ANODE c | 8 D, CATHODE c | 8 D, CATHODE c | 8 D, ANODE c |
| 9 D, ANODE g | 9 D, CATHODE g | 9 D, CATHODE g | 9 D, ANODE g |
| 10 D, ANODE f | 10 D, CATHODE f | 10 D, CATHODE f | 10 D, ANODE f |
| 11 D, ANODE b | 11 D, CATHODE b | 11 D, CATHODE b | 11 D, ANODE b |
| 12 D, ANODE h | 12 D, CATHODE h | 12 D, CATHODE h | 12 D, ANODE h |
| 13 D, ANODE i | 13 D, CATHODE i | 13 D, CATHODE i | 13 D, ANODE i |
| 14 D, ANODE j | 14 D, CATHODE j | 14 D, CATHODE j | 14 D, ANODE j |
| 15 D, ANODE k | 15 D, CATHODE k | 15 D, CATHODE k | 15 D, ANODE k |
| 16 D, ANODE l | 16 D, CATHODE l | 16 D, CATHODE l | 16 D, ANODE l |

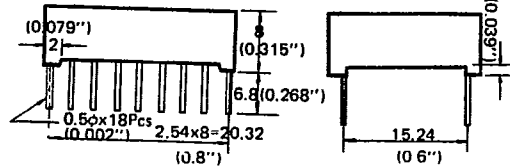


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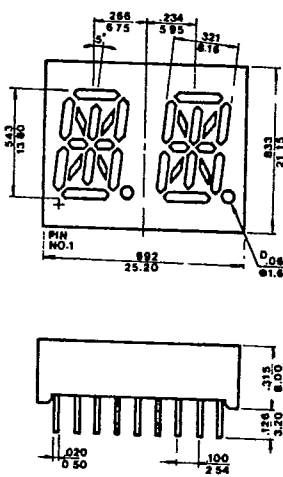
T-41-35
T-41-31



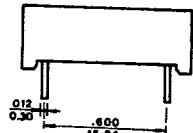
- PIN CONNECTION**
- | | | | |
|---------------------|--------------------|--------------------|--------------------|
| CM2-501X | 1 D, ANODE e | CM2-502X | 1 D, CATHODE e |
| 2 D, ANODE d | 2 D, CATHODE d | 2 D, CATHODE d | 2 D, CATHODE d |
| 3 D, ANODE c | 3 D, CATHODE c | 3 D, CATHODE c | 3 D, CATHODE c |
| 4 D, ANODE dp | 4 D, CATHODE dp | 4 D, CATHODE dp | 4 D, CATHODE dp |
| 5 D, ANODE e | 5 D, CATHODE e | 5 D, CATHODE e | 5 D, CATHODE e |
| 6 D, ANODE d | 6 D, CATHODE d | 6 D, CATHODE d | 6 D, CATHODE d |
| 7 D, ANODE c | 7 D, CATHODE c | 7 D, CATHODE c | 7 D, CATHODE c |
| 8 D, ANODE dp | 8 D, CATHODE dp | 8 D, CATHODE dp | 8 D, CATHODE dp |
| 9 D, ANODE e | 9 D, CATHODE e | 9 D, CATHODE e | 9 D, CATHODE e |
| 10 D, ANODE d | 10 D, CATHODE d | 10 D, CATHODE d | 10 D, CATHODE d |
| 11 D, ANODE c | 11 D, CATHODE c | 11 D, CATHODE c | 11 D, CATHODE c |
| 12 D, ANODE dp | 12 D, CATHODE dp | 12 D, CATHODE dp | 12 D, CATHODE dp |
| 3 D, COMMON CATHODE | 13 D, COMMON ANODE | 13 D, COMMON ANODE | 13 D, COMMON ANODE |
| 4 D, COMMON CATHODE | 14 D, COMMON ANODE | 14 D, COMMON ANODE | 14 D, COMMON ANODE |
| 5 D, ANODE b | 15 D, CATHODE b | 15 D, CATHODE b | 15 D, CATHODE b |
| 6 D, ANODE a | 16 D, CATHODE a | 16 D, CATHODE a | 16 D, CATHODE a |
| 7 D, ANODE g | 17 D, CATHODE g | 17 D, CATHODE g | 17 D, CATHODE g |
| 8 D, ANODE f | 18 D, CATHODE f | 18 D, CATHODE f | 18 D, CATHODE f |



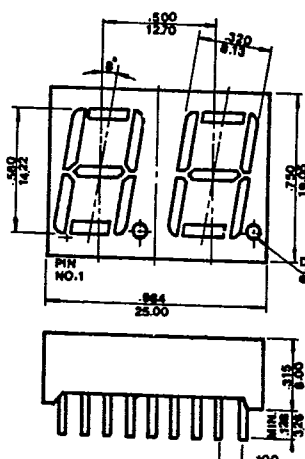
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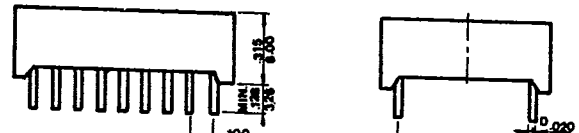
- PIN CONNECTION**
- | | | | |
|----------------------|--------------------|--------------------|--------------------|
| CM2-541X | 1 ANODE e | CM2-542X | 1 CATHODE e |
| 2 ANODE m | 2 CATHODE m | 2 CATHODE m | 2 CATHODE d |
| 3 NO CONNECTION | 3 NO CONNECTION | 3 NO CONNECTION | 3 CATHODE c |
| 4 ANODE l | 4 CATHODE l | 4 CATHODE l | 4 CATHODE dp |
| 5 ANODE k | 5 CATHODE k | 5 CATHODE k | 5 CATHODE d |
| 6 ANODE j | 6 CATHODE j | 6 CATHODE j | 6 CATHODE dp |
| 7 ANODE d | 7 CATHODE d | 7 CATHODE d | 7 CATHODE c |
| 8 ANODE dp | 8 CATHODE dp | 8 CATHODE dp | 8 CATHODE dp |
| 9 ANODE c | 9 CATHODE c | 9 CATHODE c | 9 CATHODE c |
| 10 ANODE b | 10 CATHODE b | 10 CATHODE b | 10 CATHODE b |
| 11 D, COMMON CATHODE | 11 D, COMMON ANODE | 11 D, COMMON ANODE | 11 D, COMMON ANODE |
| 12 ANODE a | 12 CATHODE a | 12 CATHODE a | 12 CATHODE a |
| 13 ANODE n | 13 CATHODE n | 13 CATHODE n | 13 CATHODE n |
| 14 ANODE h | 14 CATHODE h | 14 CATHODE h | 14 CATHODE h |
| 15 ANODE g | 15 CATHODE g | 15 CATHODE g | 15 CATHODE g |
| 16 D, COMMON CATHODE | 16 D, COMMON ANODE | 16 D, COMMON ANODE | 16 D, COMMON ANODE |
| 17 ANODE p | 17 CATHODE p | 17 CATHODE p | 17 CATHODE p |
| 18 ANODE f | 18 CATHODE f | 18 CATHODE f | 18 CATHODE f |



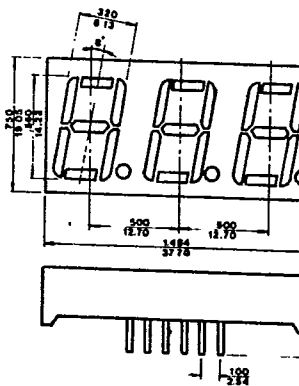
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- PIN CONNECTION**
- | | | | |
|----------------------|--------------------|--------------------|--------------------|
| CM2-561X | 1 D, ANODE e | CM2-562X | 1 D, CATHODE e |
| 2 D, ANODE d | 2 D, CATHODE d | 2 D, CATHODE d | 2 D, CATHODE d |
| 3 D, ANODE c | 3 D, CATHODE c | 3 D, CATHODE c | 3 D, CATHODE c |
| 4 D, ANODE dp | 4 D, CATHODE dp | 4 D, CATHODE dp | 4 D, CATHODE dp |
| 5 D, ANODE e | 5 D, CATHODE e | 5 D, CATHODE e | 5 D, CATHODE e |
| 6 D, ANODE d | 6 D, CATHODE d | 6 D, CATHODE d | 6 D, CATHODE d |
| 7 D, ANODE c | 7 D, CATHODE c | 7 D, CATHODE c | 7 D, CATHODE c |
| 8 D, ANODE dp | 8 D, CATHODE dp | 8 D, CATHODE dp | 8 D, CATHODE dp |
| 9 D, ANODE e | 9 D, CATHODE e | 9 D, CATHODE e | 9 D, CATHODE e |
| 10 D, ANODE b | 10 D, CATHODE b | 10 D, CATHODE b | 10 D, CATHODE b |
| 11 D, ANODE a | 11 D, CATHODE a | 11 D, CATHODE a | 11 D, CATHODE a |
| 12 D, ANODE f | 12 D, CATHODE f | 12 D, CATHODE f | 12 D, CATHODE f |
| 13 D, COMMON CATHODE | 13 D, COMMON ANODE | 13 D, COMMON ANODE | 13 D, COMMON ANODE |
| 14 D, COMMON CATHODE | 14 D, COMMON ANODE | 14 D, COMMON ANODE | 14 D, COMMON ANODE |
| 15 D, ANODE b | 15 D, CATHODE b | 15 D, CATHODE b | 15 D, CATHODE b |
| 16 D, ANODE a | 16 D, CATHODE a | 16 D, CATHODE a | 16 D, CATHODE a |
| 17 D, ANODE g | 17 D, CATHODE g | 17 D, CATHODE g | 17 D, CATHODE g |
| 18 D, ANODE f | 18 D, CATHODE f | 18 D, CATHODE f | 18 D, CATHODE f |



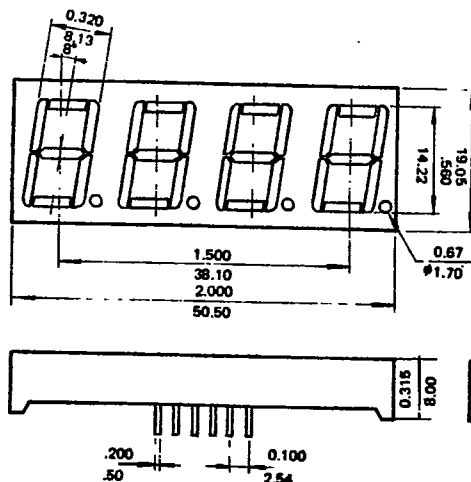
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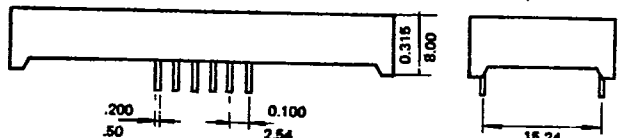
- PIN CONNECTION**
- | | | | |
|----------------------|--------------------|--------------------|--------------------|
| CM3-565X | 1 ANODE e | CM3-566X | 1 CATHODE e |
| 2 ANODE d | 2 CATHODE d | 2 CATHODE d | 2 CATHODE d |
| 3 ANODE dp | 3 CATHODE dp | 3 CATHODE dp | 3 CATHODE dp |
| 4 ANODE c | 4 CATHODE c | 4 CATHODE c | 4 CATHODE c |
| 5 ANODE g | 5 CATHODE g | 5 CATHODE g | 5 CATHODE g |
| 6 NO CONNECTION | 6 NO CONNECTION | 6 NO CONNECTION | 6 NO CONNECTION |
| 7 ANODE b | 7 CATHODE b | 7 CATHODE b | 7 CATHODE b |
| 8 D, COMMON CATHODE | 8 D, COMMON ANODE | 8 D, COMMON ANODE | 8 D, COMMON ANODE |
| 9 D, COMMON CATHODE | 9 D, COMMON ANODE | 9 D, COMMON ANODE | 9 D, COMMON ANODE |
| 10 ANODE f | 10 CATHODE f | 10 CATHODE f | 10 CATHODE f |
| 11 ANODE a | 11 CATHODE a | 11 CATHODE a | 11 CATHODE a |
| 12 D, COMMON CATHODE | 12 D, COMMON ANODE | 12 D, COMMON ANODE | 12 D, COMMON ANODE |



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- PIN CONNECTION**
- | | | | |
|----------------------|--------------------|--------------------|--------------------|
| CM4-565X | 1 ANODE e | CM4-566X | 1 CATHODE e |
| 2 ANODE d | 2 CATHODE d | 2 CATHODE d | 2 CATHODE d |
| 3 ANODE dp | 3 CATHODE dp | 3 CATHODE dp | 3 CATHODE dp |
| 4 ANODE c | 4 CATHODE c | 4 CATHODE c | 4 CATHODE c |
| 5 ANODE g | 5 CATHODE g | 5 CATHODE g | 5 CATHODE g |
| 6 D, COMMON CATHODE | 6 D, COMMON ANODE | 6 D, COMMON ANODE | 6 D, COMMON ANODE |
| 7 ANODE b | 7 CATHODE b | 7 CATHODE b | 7 CATHODE b |
| 8 D, COMMON CATHODE | 8 D, COMMON ANODE | 8 D, COMMON ANODE | 8 D, COMMON ANODE |
| 9 D, COMMON CATHODE | 9 D, COMMON ANODE | 9 D, COMMON ANODE | 9 D, COMMON ANODE |
| 10 ANODE f | 10 CATHODE f | 10 CATHODE f | 10 CATHODE f |
| 11 ANODE a | 11 CATHODE a | 11 CATHODE a | 11 CATHODE a |
| 12 D, COMMON CATHODE | 12 D, COMMON ANODE | 12 D, COMMON ANODE | 12 D, COMMON ANODE |



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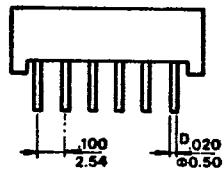
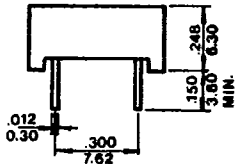
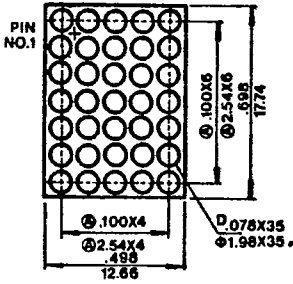
PIN CONNECTION

CMD-2571X

- 1 ANODE COLUMN 1
- 2 CATHODE ROW 3
- 3 ANODE COLUMN 2
- 4 CATHODE ROW 5
- 5 CATHODE ROW 6
- 6 CATHODE ROW 7
- 7 ANODE COLUMN 4
- 8 ANODE COLUMN 5
- 9 CATHODE ROW 4
- 10 ANODE COLUMN 3
- 11 CATHODE ROW 2
- 12 CATHODE ROW 1

CMD-2572X

- 1 CATHODE COLUMN 1
- 2 ANODE ROW 3
- 3 CATHODE COLUMN 2
- 4 ANODE ROW 5
- 5 ANODE ROW 6
- 6 ANODE ROW 7
- 7 CATHODE COLUMN 4
- 8 CATHODE COLUMN 5
- 9 ANODE ROW 4
- 10 CATHODE COLUMN 3
- 11 ANODE ROW 2
- 12 ANODE ROW 1



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T-41-35
T-41-31

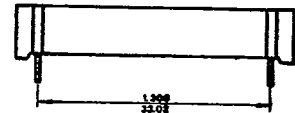
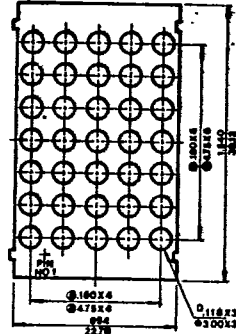
PIN CONNECTION

CMD-3571X

- 1 ANODE ROW 5
- 2 ANODE ROW 7
- 3 CATHODE COLUMN 2
- 4 CATHODE COLUMN 3
- 5 ANODE ROW 4
- 6 CATHODE COLUMN 8
- 7 ANODE ROW 6
- 8 ANODE ROW 3
- 9 ANODE ROW 1
- 10 CATHODE COLUMN 4
- 11 CATHODE COLUMN 3
- 12 ANODE ROW 4
- 13 CATHODE COLUMN 1
- 14 ANODE ROW 2

CMD-3572X

- 1 CATHODE ROW 5
- 2 CATHODE ROW 7
- 3 ANODE COLUMN 2
- 4 ANODE COLUMN 3
- 5 CATHODE ROW 4
- 6 ANODE COLUMN 8
- 7 CATHODE ROW 6
- 8 CATHODE ROW 3
- 9 CATHODE ROW 1
- 10 ANODE COLUMN 4
- 11 ANODE COLUMN 3
- 12 CATHODE ROW 4
- 13 ANODE COLUMN 1
- 14 CATHODE ROW 2



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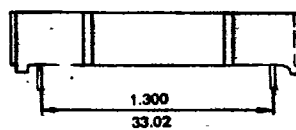
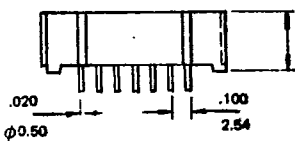
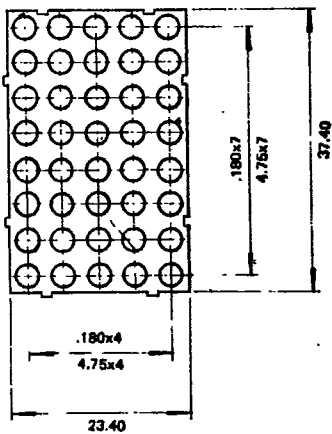
PIN CONNECTION

CMD-3581X

- 1 ANODE ROW 6
- 2 ANODE ROW 8
- 3 CATHODE COLUMN 2
- 4 CATHODE COLUMN 3
- 5 ANODE ROW 5
- 6 CATHODE COLUMN 5
- 7 ANODE ROW 7
- 8 ANODE ROW 3
- 9 ANODE ROW 1
- 10 CATHODE COLUMN 4
- 11 CATHODE COLUMN 3
- 12 ANODE ROW 4
- 13 CATHODE COLUMN 1
- 14 ANODE ROW 2

CMD-3582X

- 1 CATHODE ROW 6
- 2 CATHODE ROW 8
- 3 ANODE COLUMN 2
- 4 ANODE COLUMN 3
- 5 CATHODE ROW 5
- 6 ANODE COLUMN 5
- 7 CATHODE ROW 7
- 8 CATHODE ROW 3
- 9 CATHODE ROW 1
- 10 ANODE COLUMN 4
- 11 ANODE COLUMN 3
- 12 CATHODE ROW 4
- 13 ANODE COLUMN 1
- 14 CATHODE ROW 2



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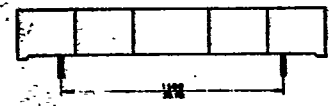
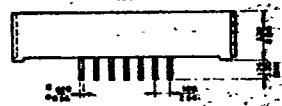
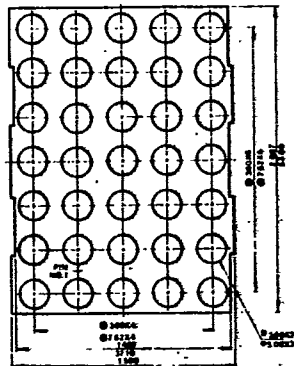
PIN CONNECTION

CMD-5571X

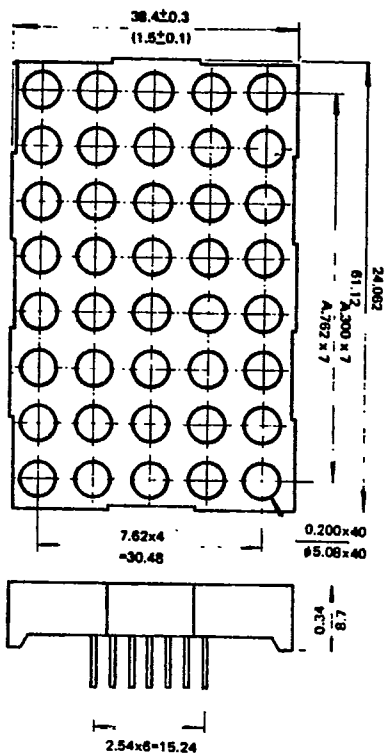
- 1 ANODE ROW 5
- 2 ANODE ROW 7
- 3 CATHODE COLUMN 2
- 4 CATHODE COLUMN 3
- 5 ANODE ROW 4
- 6 CATHODE COLUMN 5
- 7 ANODE ROW 6
- 8 ANODE ROW 3
- 9 ANODE ROW 1
- 10 CATHODE COLUMN 4
- 11 CATHODE COLUMN 3
- 12 ANODE ROW 4
- 13 CATHODE COLUMN 1
- 14 ANODE ROW 2

CMD-5572X

- 1 CATHODE ROW 5
- 2 CATHODE ROW 7
- 3 ANODE COLUMN 2
- 4 ANODE COLUMN 3
- 5 CATHODE ROW 4
- 6 ANODE COLUMN 5
- 7 CATHODE ROW 6
- 8 CATHODE ROW 3
- 9 CATHODE ROW 1
- 10 ANODE COLUMN 4
- 11 ANODE COLUMN 3
- 12 CATHODE ROW 4
- 13 ANODE COLUMN 1
- 14 CATHODE ROW 2

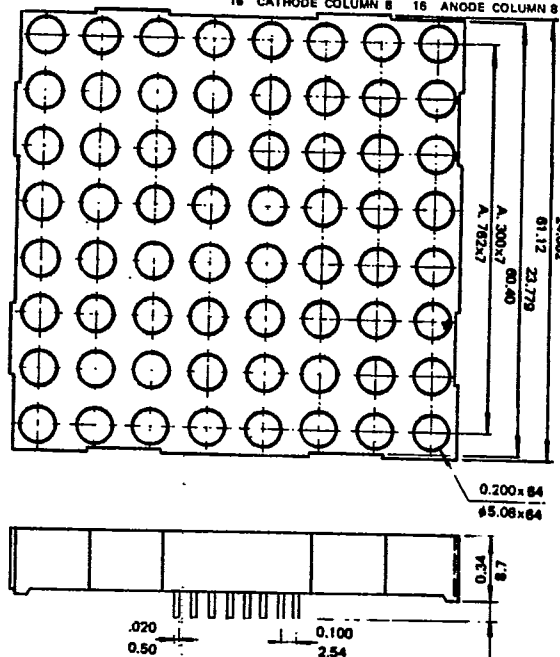


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- PIN CONNECTION**
- CMD-5581X**
- 1 ANODE ROW 6
 - 2 ANODE ROW 8
 - 3 CATHODE COLUMN 2
 - 4 CATHODE COLUMN 3
 - 5 ANODE ROW 5
 - 6 CATHODE COLUMN 5
 - 7 ANODE ROW 7
 - 8 ANODE ROW 3
 - 9 ANODE ROW 1
 - 10 CATHODE COLUMN 4
 - 11 CATHODE COLUMN 3
 - 12 ANODE ROW 4
 - 13 CATHODE COLUMN 1
 - 14 ANODE ROW 2
- CMD-5582X**
- 1 CATHODE ROW 6
 - 2 CATHODE ROW 8
 - 3 ANODE COLUMN 2
 - 4 ANODE COLUMN 3
 - 5 CATHODE ROW 5
 - 6 ANODE COLUMN 5
 - 7 CATHODE ROW 7
 - 8 CATHODE ROW 3
 - 9 CATHODE ROW 1
 - 10 ANODE COLUMN 4
 - 11 ANODE COLUMN 3
 - 12 CATHODE ROW 4
 - 13 ANODE COLUMN 1
 - 14 CATHODE ROW 2

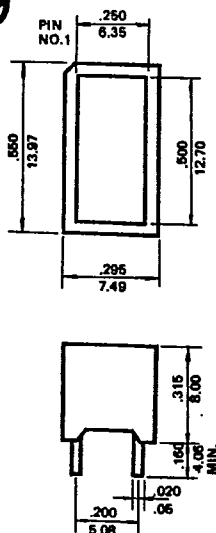
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- PIN CONNECTION**
- CMD-5581X**
- 1 ANODE ROW 6
 - 2 ANODE ROW 8
 - 3 CATHODE COLUMN 2
 - 4 CATHODE COLUMN 3
 - 5 ANODE ROW 5
 - 6 CATHODE COLUMN 5
 - 7 ANODE ROW 7
 - 8 ANODE ROW 3
 - 9 ANODE ROW 1
 - 10 CATHODE COLUMN 4
 - 11 CATHODE COLUMN 3
 - 12 ANODE ROW 4
 - 13 CATHODE COLUMN 1
 - 14 ANODE ROW 2
- CMD-5582X**
- 1 CATHODE ROW 5
 - 2 CATHODE ROW 8
 - 3 ANODE COLUMN 2
 - 4 ANODE COLUMN 3
 - 5 CATHODE ROW 6
 - 6 ANODE COLUMN 5
 - 7 CATHODE ROW 7
 - 8 CATHODE ROW 3
 - 9 CATHODE ROW 1
 - 10 ANODE COLUMN 4
 - 11 ANODE COLUMN 6
 - 12 CATHODE ROW 4
 - 13 ANODE COLUMN 1
 - 14 ANODE COLUMN 2
 - 15 ANODE COLUMN 7
 - 16 ANODE COLUMN 8

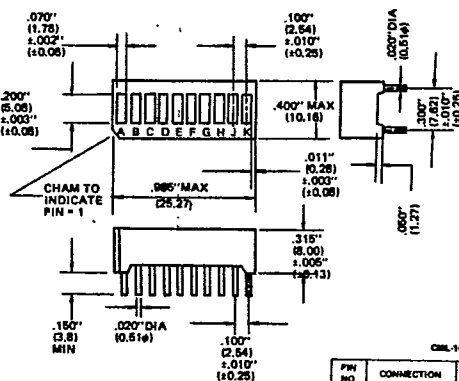
T-41-31

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- CML-100X**
- 1. CATHODE A
 - 2. NO PIN
 - 3. ANODE B
 - 4. CATHODE B
 - 5. NO CONNECTION
 - 6. ANODE A

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CML-100X

PIN NO.	CONNECTION	PIN NO.	CONNECTION
1	Anode A	11	Cathode K
2	Anode B	12	Cathode J
3	Anode C	13	Cathode H
4	Anode D	14	Cathode G
5	Anode E	15	Cathode F
6	Anode F	16	Cathode E
7	Anode G	17	Cathode D
8	Anode H	18	Cathode C
9	Anode J	19	Cathode B
10	Anode K	20	Cathode A

ABSOLUTE MAXIMUM RATINGS (T _a = 25						
ABSOLUTE MAXIMUM RATINGS (T _a = 25°C)						
PARAMETER	RED (GaAsP)	GREEN	ORANGE	Gap RED	HI-EFFI RED	UNITS
Reverse Voltage Per Segment or D.P.	5	5	5	5	5	V
Average Forward Current (I _F)	30	30	30	30	30	mA
Peak Forward Current Per Segment or D.P.	200	200	200	200	200	mA
Power Dissipation	100	85	85	85	85	mW
Operating Temperature Range	- 40°C TO 85°C					
Storage Temperature Range	- 40°C TO 100°C					
Lead Solder Temperature (1.6 mm From Body) 260°C for 3sec.						

ELECTRO - OPTICAL CHARACTERISTICS (T _a = 25°C)							
PARAMETER	SYMBOL	DEVICES	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Forward Voltage	V _F	GaAsp RED	1.5	1.7	2.0	V	I _F = 10mA
		GREEN	1.54	2.2	3.0		
		ORANGE	1.47	2.1	3.0		
		Gap RED	1.40	2.0	3.0		
		HI-EFF RED	1.47	2.1	3.0		
Wavelength	λ _p	GaAsp RED		655		nm	I _F = 20mA
		GREEN		567			
		ORANGE		635			
		Gap RED		700			
		HI-EFFI RED		635			
Spectral Line Halfwidth	Δλ	GaAsp RED		40		nm	I _F = 20mA
		GREEN		30			
		ORANGE		45			
		Gap RED		90			
		HI-EFFI RED		45			
Reverse Current	I _R	GaAsp RED			100	μA	*1 DICE V _R = 5V 2 DICES V _R = 10V 3 DICES V _R = 20V
		GREEN			100		
		ORANGE			100		
		Gap RED			100		
		HI-EFFI RED			100		

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES (25°C Free Air Temperature Unless Otherwise Specified)

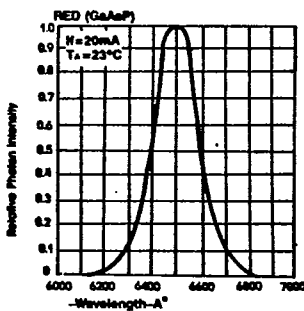


Fig. 2 RELATIVE SPECTRAL CHARACTERISTICS

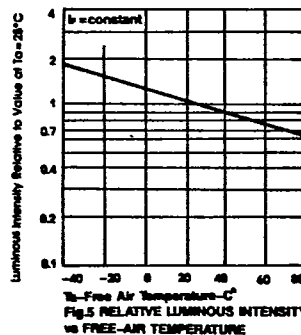


Fig. 5 RELATIVE LUMINOUS INTENSITY vs FREE-AIR TEMPERATURE

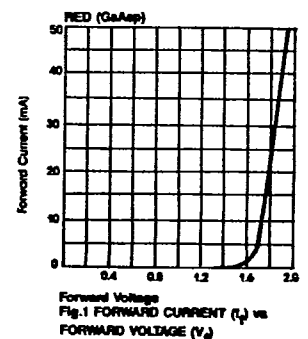


Fig. 1 FORWARD CURRENT (I_F) vs FORWARD VOLTAGE (V_F)

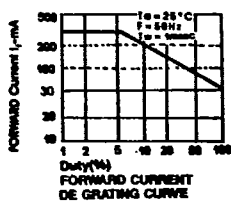


Fig. 6 FORWARD CURRENT DE GRATING CURVE

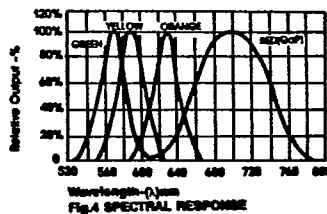


Fig. 4 SPECTRAL RESPONSE

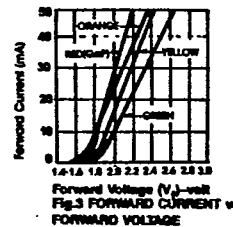


Fig. 3 FORWARD CURRENT vs FORWARD VOLTAGE

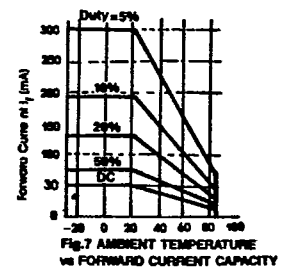


Fig. 7 AMBIENT TEMPERATURE vs FORWARD CURRENT CAPACITY

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