



The tolerance unless classified ± 0.3mm

MECHANICAL SPECIFICATION									
Overall Size	Overall Size 180.0 x 75.0		H2 / H1						
View Area	134.0 x 40.4	W /O B/L	4.5 / 8.6						
Dot Size	0.49 x 0.49	EL B/L	4.5 / 8.6						
Dot Pitch	0.53 x 0.53	LED CCFL B/L	9.2 / 13.3						

PIN ASSIGNMENT					
Pin no.	Symbol	Function			
1	D	Serial data input			
2	FLM	Shift direction select			
3	M	Alternation control signal			
4	CL1	Display data input clock			
5	CL2	Display data input clock			
6	NC	No connection			
7	7 Vdd Power supply(+)				
8	Vss	Power supply(GND)			
9	Vee	Negative voltage output			
10	Vo Contrast Adjust				

7.20020121111111111111111111111111111111											
Symbol		Condition		Min.			Max.		Units		
Vdd-Vss		25°C		-0.3			7.0		V		
Vdd-Vee		25°C		0			22.0		V		
Vin		25°C		-0.3		V	Vdd+0.3		V		
ELECTRICAL CHARACTERISTICS											
Symbol Co		ndition	Min.		Typical		Max.		Units		
Vdd-Vss	25°C		4	4.5		- 0		.5	V		
Vop		Тор	Ν	W	N	W	N	W	V		
	-:	20°C	_	14.3	\mathcal{N}	14.7	_	15.1	V		
		0°C	9.7	3	10.2	_	10.7	_	V		
		25°C	8.9	13,2	9.4	13.6	9.9	14	V		
		50°C	8.6	_	9.1	_	9.6	_	V		
		70°C	/_	12	_	12.4	_	12.8	V		
ldd	V	dd=5V	- 2.		5	5 –		mA			
LED/edge	VB	/L=3.5V	_		80		_		mΑ		
LED/array	VB/L=4.2V		_		650		_		mA		
	Vdd-Vs Vdd-Vs Vin ETRICAI Symbol Vdd-Vss Vop	Vdd-Vss Vdd-Vee Vin TRICAL (CSymbol CoVdd-Vss Vop Idd V LED/edge VB	Vdd-Vss 25°C Vdd-Vee 25°C Vin 25°C TRICAL CHARA Symbol Condition Vdd-Vss 25°C Top -20°C 0°C 25°C 50°C 70°C	Vdd-Vss 25°C Vdd-Vee 25°C Vin 25°C CTRICAL CHARACT Symbol Condition M Vdd-Vss 25°C 4 Top N -20°C - 0°C 9.7 25°C 8.8 50°C 8.6 70°C - Idd Vdd=5V LED/edge VB/L=3.5V	Vdd-Vss 25°C -0 Vdd-Vee 25°C -0 Vin 25°C -0 CTRICAL CHARACTER Symbol Condition Min. Min. Vdd-Vss 25°C 4.5 Top N W -20°C - 14.3 0°C 9.7 - 25°C 8.9 13.2 50°C 8.6 - 70°C - 12 Idd Vdd=5V - LED/edge VB/L=3.5V -	Vdd-Vss 25°C -0.3 Vdd-Vee 25°C 0 Vin 25°C -0.3 CTRICAL CHARACTERIST Symbol Condition Min. Typ Vdd-Vss 25°C 4.5 - Top N W N -20°C - 14.3 - 0°C 9.7 - 10.2 25°C 8.8 13.2 9.4 50°C 8.6 - 9.1 70°C - 12 - Idd Vdd=5V - 2 LED/edge VB/L=3.5V - 8	Vdd-Vss 25°C -0.3 Vdd-Vee 25°C 0 Vin 25°C -0.3 V TRICAL CHARACTERISTIC Symbol Condition Min. Typical Vdd-Vss 25°C 4.5 - Top N W N W -20°C - 14.3 14.7 - 10.2 - - 25°C 8.9 13.2 9.4 13.6 - - 13.6 - 9.1 - - 70°C - 12 - 12.4 - 12.4 - 12.4 - 12.4 - - 12.4 - - - 2.5 -	Vdd-Vss 25°C -0.3 7.0 Vdd-Vee 25°C 0 22.1 Vin 25°C -0.3 Vdd+ CTRICAL CHARACTERISTICS Symbol Condition Min. Typical Mine Mine My colspan="2">My colspan="	Vdd-Vss 25°C -0.3 7.0 Vdd-Vee 25°C 0 22.0 Vin 25°C -0.3 Vdd+0.3 CTRICAL CHARACTERISTICS Symbol Condition Min. Typical Max. Vdd-Vss 25°C 4.5 - 5.5 Top N W N W N W N W N W N W N W N W N W N W N W N W N W N W N W N W N W N W N W N W N W N W		

ABSOLUTE MAXIMUM RATING