UNCONTROLLED DOCUMENT PART NUMBER REV. LCM-H160160GSF-1 - 13.80 [0.543] 9.40 [0.370] PIXEL DETAIL 5.00 [0.197] — 78.80 [3.102] — (2 PLS₁) - 0.34 [0.013] 12.40 [0.488] --62.00 [2.441] V.A. -**-** 14.40 [0.567] 0.04 [0.002] 60.76 [2.392] (PIXEL AREA) - 2.54 [0.100] 0.34 [0.013] 20-ø1.00 [0.039] 0 0 PAD Ø1.80 [0.071] - 0.04 [0.002] BLOCK DIAGRAM 160 x 160, 1/160 DUTY 88,80±0,50 [3,496±0,020] 11/00 Α̈́ I/O7 SRAM (PIXEL [2,850] AO ad0 BK x 8 A12 BITS ad12 [2,392] R/W CS ĈĒ A0 seg Driver x2 SED1330 COM 160 x 160 VEE 🗻 DRIVER x2 LCD PANEL POWER Vss ---VDD SUPPLY 0 LED BACKLIGHT Ø2.30 [Ø0.091] 1,60 [0,063] ---CAUTION: STATIC SENSITIVE DEVICE 4.10 [0.161] 8.00 [0.315] [0,323] 33 (4 PLS.) FOLLOW PROPER E.S.D. HANDLING PROCEDURES 0.56 8.30 [0.327] WHEN WORKING WITH THIS PART. - 74.10 [2.917] — 6.40 [0.252] *UNCONTROLLED* 88.80±0.50 [3.496±0.020] -*UNIESS OTHERWISE SPECFED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), XX=±0.5 (±0.020), XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). NN=+DECIMAL PRECISION WAX.=+0.00 (±0.030), XXX=±0.127 (±0.005). CONFIDENTIAL INFORMATION
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LCM-H160160GSF-1

160 x 160 DOT MATRIX GRAPHIC MODULE. 1/160 DUTY, STN, TRANSFLECTIVE, LED BACKLIGHT, WIDE OPERATING TEMP, 12:00 VIEW.

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RELIABILITY NOTE OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.



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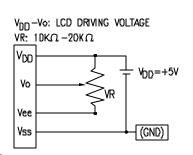
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PIN CONFIGURATION

SYMBOL	LEVEL	FUNCTION			
Vss	۵V	GND			
VDD dd√	5V	SUPPLY VOLTAGE FOR	LQGIC		
Vo	-	CONTRAST VOLTAGE F	OR LCD DRIVE(VARIABLE)		
RD	L	READ SIGNAL			
WR	L	WRITE SIGNAL			
<u>cs</u>	L	CHIP SELECT			
ΑÛ	H/L	DATA TYPE SELECT			
DBO~DB7	H/L	DATA BUS			
RES	L	RESET SIGNAL (NOTE	1)		
VEE	_	POWER SUPPLY VOLTA	AGE FOR LCD		
A	4.2V	ANODE	LED BACKLIGHT		
K	-	CATHODE	LED BACKLIGHT		
(N/C)	_	NO CONNECTION			
	Vss VbD Vo RD WR CS AO DBO~DB7 RES VEE A	VSS	VSS DV GND VDD 5V SUPPLY VOLTAGE FOR VO - CONTRAST VOLTAGE F RD L READ SIGNAL WR L WRITE SIGNAL CS L CHIP SELECT AO H/L DATA TYPE SELECT DBO~DB7 H/L DATA BUS RES L RESET SIGNAL (NOTE VEE - POWER SUPPLY VOLTAGE K - CATHODE		

CAUTION:

1. RES IS A SCHMITT TRIGGER INPUT, THE PULSEWIDTH ON RES MUST BE AT LEAST 200 Ms. PULSES OF MORE THAN A FEW SECONDS WILL CAUSE DC VOLTAGES TO BE APPLIED TO THE LCD PANEL.



ELECTRICAL	CHARACTERISTICS

/ _{nn=4.}	.75V	to	5.25V.	TA=25°C

/ ELECTRICAL CHARACTERISTICS / VDD=41/3V to 3.25V. IQ=23 C								
ITEM		SYMBOL	CONDITION	STANDARD VALUE			UNIT	
				MIN.	TYP.	MAX.	ONII	
SUPPLY VOLTAGE FOR LOGIC		A ^{DD} -Aa2		4.75	5.0	5.25	٧	
SUPPLY VOLTAGE FOR LCD DRIVE		VDD -VEE	1	1	18.2	-	٧	
SUPPLY CURRENT FOR LOGIC		₀₀ _	ı	1	1	20	mΑ	
		HIGH	٧	1	0.2	1	۷ _{DD}	٧
INPUT VOLTAGE LOW		LOW	ال	1	0	1	0.8	٧
OUTPUT VOLTAGE HIGH LOW		v_{OH}	I _{OH} =-3.0mA	2.4	1	-	٧	
		LOW	٧ _O L	I _{OL} =3.0mA	1	1	0.4	٧
VOLTAGE			۷f	If=560mA	1	4.2	4.5	٧
LED BACKLIGHT	CURRENT		If	1	1	560	-	mΑ
	POWER CU	NSUMPTION	PD	1	1	2.8	-	W
	LUMINOUS		L	lf=560mA	60	_	_	cd/m²
	COLOR		1	1	_	570	_	nm
				_				· · · · · · · · · · · · · · · · · · ·

/ ABSOLUTE MAXIMUM RATINGS

/ ,	\				
ПЕМ	SYMBOL	TEST	STANDARD VALUE		UNIT
IIEM	SIMBUL	CONDITION	MIN	MAX 7.0 19.2 6 0°C V _{DD}	VIIII
SUPPLY VOLTAGE FOR LOGIC	V _D p-Vss	Ta=25°C	0	7.0	٧
SUPPLY VOLTAGE FOR LCD DRIVE	VDI3 -VEE	_	17.2 © 40°C	19.2 0 0°C	٧
INPUT VOLTAGE	٧	Ta=25°C	Vss	v _{DD}	٧
OPERATING TEMPERATURE	Tapr	LCM-H	-20	70	.C
STORAGE TEMPERATURE	Tstg	LCM-H	-30	85	.C

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REV.

PART NUMBER LCM-H160160GSF-1

160 x 160 DOT MATRIX GRAPHIC MODULE. 1/160 DUTY, STN, TRANSFLECTIVE, LED BACKLIGHT, WIDE OPERATING TEMP, 12:00 VIEW.

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