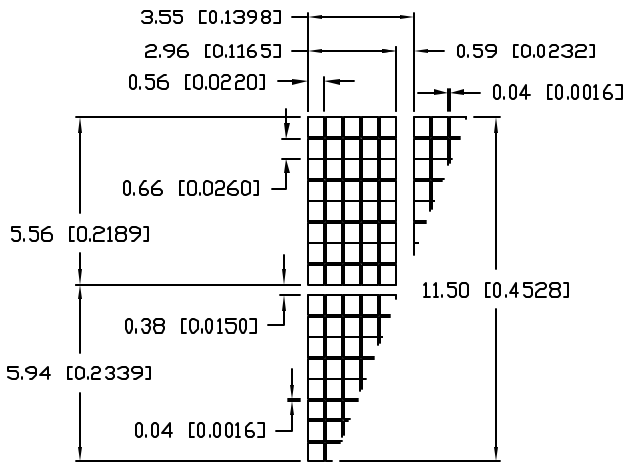
UNCONTROLLED DOCUMENT

SC:1	PART NUMBER	REV.
	LCM-S01602DSF/C-1M	P1

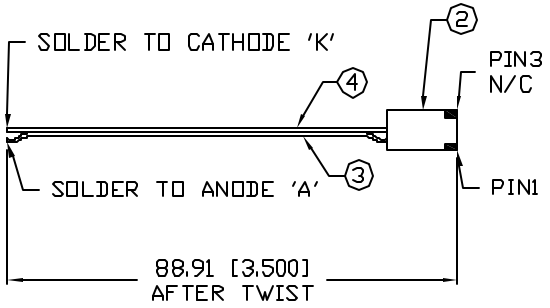
PRELIMINARY IN P/N DIR

CHARACTER DETAIL



NOTES:

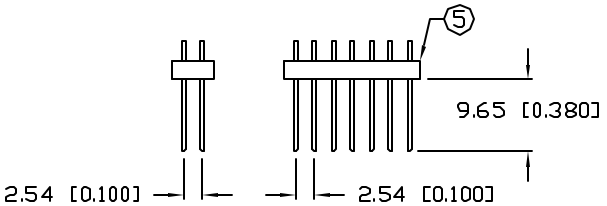
1. TWIST WIRES ON CONNECTOR A MINIMUM OF 5 TIMES, LENGTH IS 3.50" AFTER TWIST.
2. R7 = 3.4K OHMS.

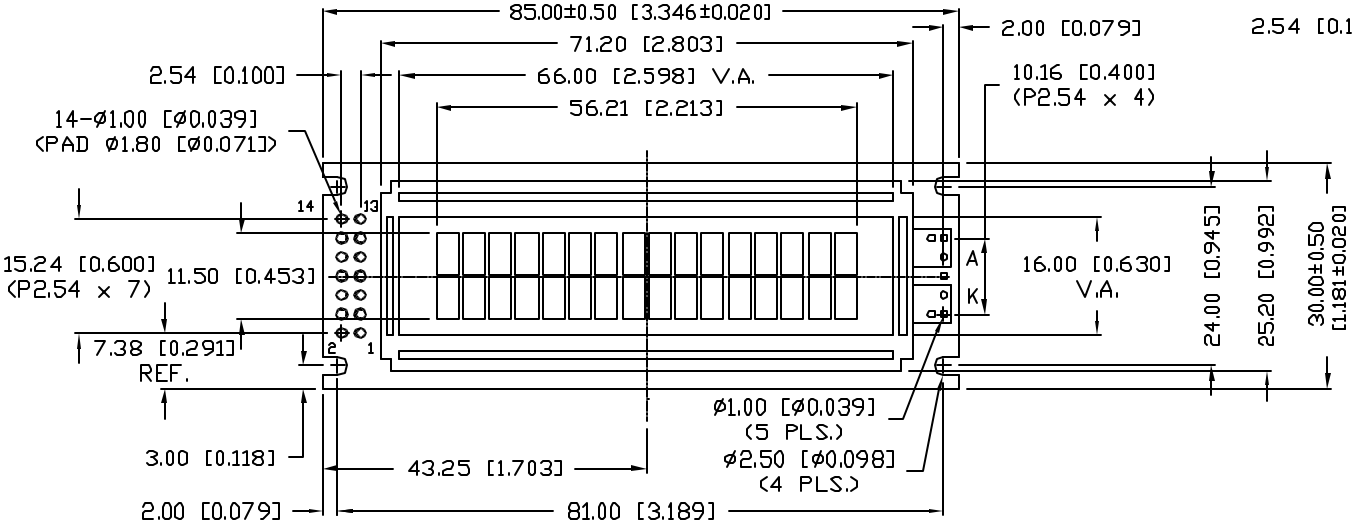


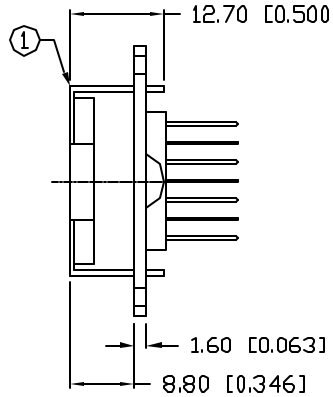
CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES WHEN WORKING WITH THIS PART.

BOM:

1. LCM-S01602DSF/C-1.
2. MOLEX CONNECTOR: 22-01-3037 OR EQUIVALENT.
3. RED 24 AWG WIRE.
4. BLACK 24 AWG WIRE.
5. 2x7 SAMTEC HEADER: MTSW-107-22-S-D-380 OR EQUIVALENT.







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*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= +DECIMAL PRECISION -0.00 MAX.= +0.00 -DECIMAL PRECISION

REV.	PART NUMBER
P1	LCM-S01602DSF/C-1M

16 x 2 LCD, 5 x 8 DOT MATRIX, STN, TRANSFLECTIVE, BACKLIGHT, 1/16 DUTY, 1/5 BIAS, 12:00 VIEW, CUSTOM WIRE ASSEMBLY.

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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CT			PAGE: 1 OF 2
			SCALE: N/A

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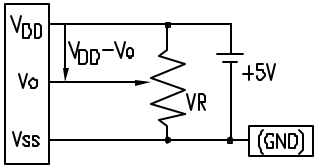
PART NUMBER	REV.
LCM-S01602DSF/C-1M	P1

PRELIMINARY IN P/N DIR

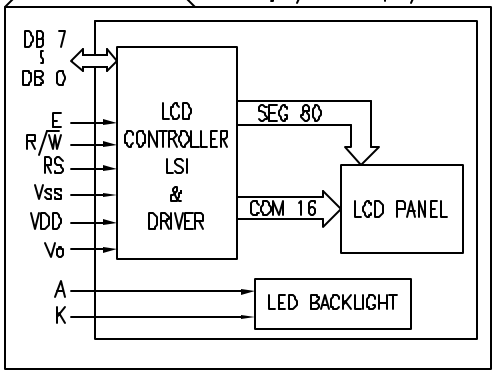
PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	V_{DD}	–	POWER SUPPLY	5V
2	Vss	–		GND (0V)
3	Vo	–		FOR LCD DRIVE
4	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT	
5	R/W	H/L	H: DATA READ (MODULE-->MPU) L: DATA WRITE (MODULE<--MPU)	
6	E	H,H->L	ENABLE	
7~14	DB0~DB7	H/L	DATA BUS-SOFTWARE SELECTABLE 4 OR 8 BIT MODE.	

V_{DD}-Vo: LCD DRIVING VOLTAGE
VR: 10KΩ -20KΩ



BLOCK DIAGRAM 16 x 2, 1/16 DUTY, 1/5 BIAS



ELECTRICAL CHARACTERISTICS

V_{DD}=4.7V to 5.3V, T_A=25°C

ITEM			SYMBOL	CONDITION	STANDARD VALUE			UNIT
					MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC			V_{DD}-Vss	–	–	5.0	–	V
SUPPLY CURRENT FOR LOGIC			I_{DD}	V_{DD}=5V	–	2.0	3.0	mA
INPUT VOLTAGE		HIGH	V_{IH}	–	2.2	–	VDD	V
		LOW	V_{IL}	–	0	–	0.6	V
OUTPUT VOLTAGE		HIGH	V_{OH}	–	2.4	–	–	V
		LOW	V_{OL}	–	–	–	0.4	V
LED BACKLIGHT	VOLTAGE		Vf	If=160mA	–	4.2	4.6	V
	CURRENT		If	–	–	160	–	mA
	POWER CUNSUMPTION		PD	–	–	656	–	mW
	LUMINOUS		L	If=160mA	70	–	–	cd/m²
	COLOR		–	–	–	–	–	nm

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	V_{DD}-Vss	Ta=25°C	4.7	5.3	V
SUPPLY VOLTAGE FOR LCD DRIVE	V_{DD}-Vo	–	4.2@50°C	4.8@0°C	V
INPUT VOLTAGE	V_I	Ta=25°C	Vss	V_{DD}	V
OPERATING TEMPERATURE	Topr	LCM-S	0	50	°C
STORAGE TEMPERATURE	Tstg	LCM-S	-20	70	°C

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