

64×240 dots**DG06245**

(Built-in controller with back light) 1/64 Duty

SANYO SEMICONDUCTOR CORP

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This dot matrix module with back light has a controller that allows 40 characters by 8 lines on 64 dots by 240 dots of graphics to be displayed. It provides the control circuits such as data RAM, character ROM. It can be interfaced with a CPU through an 8-bit bidirectional data bus and connected directly to 80-series CPU.

Mechanical characteristics

Parameter	Dimensions	unit
Out line	180.0 (W) × 65.0 (H) × 17.0 (T)	mm
Min. viewing area	132.5 (W) × 39.5 (H)	mm
Dot display area	127.16 (W) × 33.88 (H)	mm
Dot size	0.49 (W) × 0.49 (H)	mm
Dot pitch	0.53 (W) × 0.53 (H)	mm
Weight	240 (approximately)	g

Absolute maximum ratings

Parameter	Symbol	min.	max.	unit
Logic supply voltage	$V_{DD} - V_{SS}$	-0.3	7.0	V
LCD supply voltage	$V_{DD} - V_0$	-0.3	20.0	V
Input voltage	V_I	-0.3	$V_{DD} + 0.3$	V
Operating temperature	T_{opg}	0	+50	°C
Storage temperature	T_{stg}	-20	+70	°C

Electrical characteristics (Ta = 25°C, $V_{DD} = 5.0 \pm 0.25V$)

Parameter	Symbol	Condition	min.	typ.	max.	unit
Input high-level voltage	V_{IH}	Input pin	$V_{DD} - 2.2$	—	V_{DD}	V
Input low-level voltage	V_{IL}		0	—	0.8	V
LCD drive voltage	V_0	—	—	14.0	—	V
Oscillation frequency	f_{osc}	—	—	4.0	—	MHz
Supply current	I_{DD}	$V_{DD} - V_{SS} = 5.0V$	—	15.0	25.0	mA
LCD supply current	I_{EE}	$V_{DD} - V_0 = 14.0V$	—	1.0	4.0	mA

Pin functions

No	Symbol	Functions	No	Symbol	Functions
1	FGND	Frame Gnd/EL Gnd, pin	11	DB 0	Data bus line D 0 : LSB D 7 : MSB
2	V_{SS}	Gnd pin, 0V	12	DB 1	
3	V_{DD}	Positive power pin, +5V	13	DB 2	
4	V_{EE}	Negative power pin, -15V max.	14	DB 3	
5	WR	Write input pin, L:data write	16	DB 4	
6	RD	Read input pin, L:data read	16	DB 5	
7	CE	Chip enable input pin, L:enable	17	DB 6	
8	C/D	Command/data select pin, H:command, L:data	18	DB 7	Word area select pin, FS = L(8×8)
9	NC		19	FS	
10	RESET	Reset input pin, L:reset	20	NC	
P/N	(Open)	Positive indicate	21	CFL 1	Power terminal of CFL lamp, 1 or LED (Anode)
	(Short)	Negative indicate	22	CFL 2	Power terminal of CFL lamp, 2 or LED (Cathode)

