



Feature

1. 240x128 dots includes cursor
2. Built-in controller (RA6963 or equivalent)
3. +5V power supply(Also available for +3V)
- 3 4. 1/128duty cycle
- 5. LED can be driven by pin2,pin3,or A and K
- 6.TG240128E:Pin1-20, TG240128EP2:Pin1-21

Mechanical Data

Item	Value	Unit
Outline	152.0 x 104.0	mm
Viewing Area	114.0 x 64.0	mm
Active Area	107.98 x 57.58	mm
Dot Size	0.43 x 0.43	mm
Dot Pitch	0.45 x 0.45	mm

Terminal Function

Pin No.	Symbol	Function
1	Vee/FG	Negative Voltage output/Frame GND
2	V _{SS}	GND
3	V _{DD}	Supply voltage for logic
4	V ₀	Contrast Adjustment
5	/WR	Data write s
6	/RD	Data read
7	/CE	H-L Enable signal
8	C/D	Command/data read/write
9	/RST	Reset signal
10-17	DB0-DB7	H/L Data bus line
18	FS	FS="H",6*8character font FS="L",8*8character font
19	A/ Vee	Backlight +/- Negative Voltage output
20	K/A	Backlight LED-/ Backlight LED+
21	NC/K	NC/ Backlight LED-

Electrical Characteristics

Item	Symbol	Min	Typ	Max
Operating Voltage(V)	V _{DD}	4.7	5.0	5.3
Supply Voltage For LCD	V _{DD} -V ₀	—	19.5	—
Input High Voltage(V)	V _{IH}	0.7	—	V _{DD}
Input Low Voltage(V)	V _{IL}	V _{SS}	—	0.6
Operating Current(mA)	I _{DD}	—	23	35

Backlight Characteristics

Item	Symbol	Min	Typ	Max	Unit
Forward Voltage	V _f (edge)	3.4	3.5	3.6	V
Forward Current	I _f (edge)	96	128	160	mA
Forward Voltage	V _f (array)	-	4.2	4.4	V
Forward Current	I _f (array)	-	900	1800	mA

Absolute Maximum

Item	Symbo	Min	Max
Operating Voltage(V)	V _{dd}	-0.3	5.5
Operating Temperature(°C)	Top	-20	+70
Storage Temperature (°C)	T _{st}	-30	+80