

YMS12232-01

122 x 32DOTS
1/32DUTY, 1/5BIAS

6 ELECTRICAL CHARACTERISTICS(Ta=25 °C)

ITEM	SYMBOL	CONDITION	SPEC.VALUE			UNIT
			MIN.	TYP.	MAX.	
Supply Voltage (Logic)	$V_{DD}-V_{SS}$		4.5	5.0	5.5	V
Supply Current (Logic)	I_{DD}	$V_{DD}=5V$	-	0.5	1.0	mA
Input Voltage	"HIGH"	V_{IH}	-	$0.8V_{DD}$	-	V_{DD}
	"LOW"	V_{IL}	-	V_{SS}	-	$0.3V_{DD}$
Output Voltage	"HIGH"	V_{OH}	$I_{OH}=3.0mA$	$V_{DD}+2.4$	-	V
	"LOW"	V_{OL}	$I_{OL}=3.0mA$	-	-	$V_{DD}+0.4$
LCD Operating Voltage	$V_{DD}-V_{O}$	$V_{DD}=5V$ $Ta=25\text{ }^{\circ}C$	-	5.0	-	V
Supply Voltage LCD Drive	I_{O}		-	1.0	1.5	mA

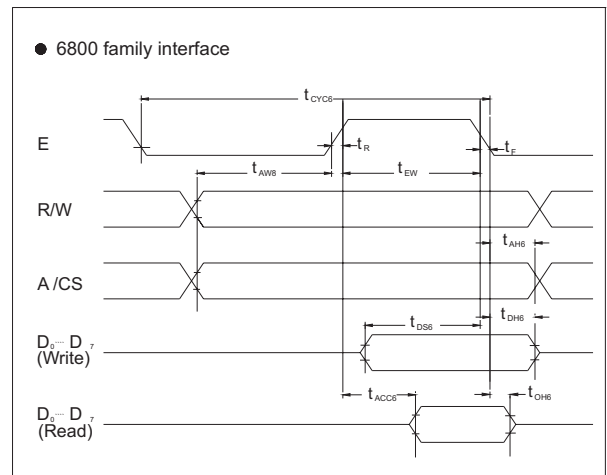
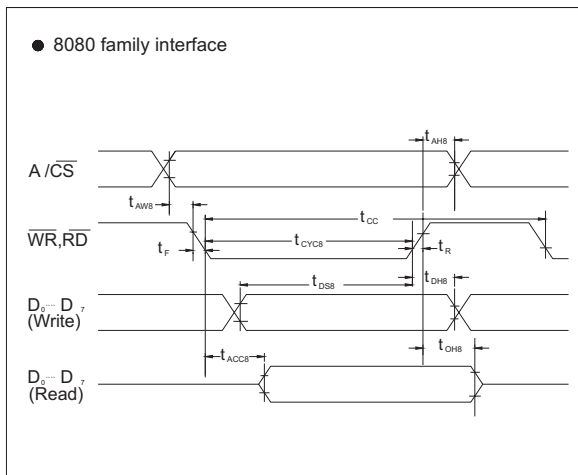
Note(1): () Value is high Reliability type
Note(2): Electro-Optical Characteristics: See page 6.

7 BACKLIGHT CHARACTERISTICS(Ta=25 °C)

LED

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	V_{LED}	-	3.95	4.1	4.25	V
Power Consumption	P_{LED}	$I_F=90\text{ mA}$	-	369	900	mW
Luminous	I_V	$I_F=90\text{ mA}$	-	-	-	cd/m ²

8 INTERFACE TIMEING CHARACTERISTICS



9 SWITCHING TIMEING CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Address Hold Time	t_{AH}	10	-	ns
Address Setup Time	t_{AS}	20	-	ns
System Cycle Time	t_{CYC}	1000	-	ns
Control Pulse Width	t_{CC}	200	-	ns
Data Setup Time	t_{DS}	80	-	ns
Data Hold Time	t_{DH}	10	-	ns
/RD Access Time	t_{ACC}	-	90	ns
Output Disable Time	t_{OH}	10	60	ns
Rise and Fall Time	t_R, t_F	-	15	ns

Condition: $V_{CC}=+5.0, V_{SS}=0V, T_a=25\text{ }^{\circ}C$

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	
Address hold time	t_{AH}	10	-	ns	
Address setup time	t_{AS}	20	-	ns	
System cycle time	t_{CYC}	1000	-	ns	
Data setup time	t_{DS}	80	-	ns	
Data hold time	t_{DH}	10	-	ns	
Output disable time	t_{OH}	10	60	ns	
Access time	t_{ACC}	-	90	ns	
Enable Low Pulse width	READ	t_{EW}	100	-	ns
	WRITE	t_{EW}	80	-	ns
Rise and fall time	t_R, t_F	-	15	ns	

Condition: $V_{CC}=+5.0, V_{SS}=0V, T_a=25\text{ }^{\circ}C$