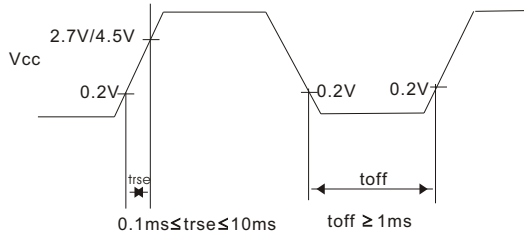


POWER SUPPLY RESET

The internal reset circuit will be operating properly when the following power supply conditions are satisfied. If it is not operated properly, please perform the initial setting along with the instruction.



Item	Symbol	Measuring Condition	Standard Value			Unit
			Min.	Typ.	Max.	
Power Supply RISE Time	t_{rse}	—	0.1	—	10	mS
Power Supply CFF Time	t_{off}	—	1	—	—	mS

Reset Function

Initialization Mode by Internal Reset Circuit

The controller automatically initializes (resets) when power is supplied (built-in internal reset circuit). The following instructions are executed during initialization. The busy flag (BF) is kept in busy state until initialization ends (BF=1). The busy state is 10ms after Vdd reaches 4.5V.

- (1) Display clear
 - ◆ DL=1:8 bit long interface data
 - ◆ DL=0:4 bit F=0:5 x 7 dots character font
 - ◆ N=1:2 lines
 - ◆ N=0:1 line
- (2) Function set
 - ◆ DL=1:8 bit long interface data
 - ◆ DL=0:4 bit F=0:5 x 7 dots character font
 - ◆ N=1:2 lines
 - ◆ N=0:1 line
- (3) Display ON/OFF control
 - ◆ D=0:Display OFF
 - ◆ C=0:Cursor OFF
 - ◆ B=0:Blink OFF
- (4) Entry mode set
 - ◆ 1 / D = 1: + 1 (increment)
 - ◆ S = 0: No shift

Note: When using internal reset circuit is not satisfied in power supply conditions, the internal reset circuit will not function properly and initialization will not be performed. Please initialize using the MPU along with the instruction set.

Initialization along with Instruction

If power supply conditions are not satisfied, which for proper operation of internal reset circuit, it is required to make initialization along with instruction. Please make following procedures.

