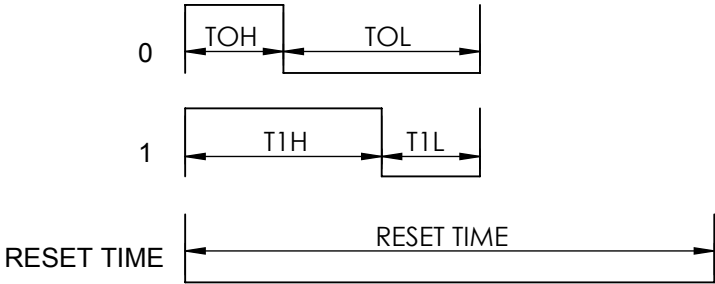


RECOMMENDED OPERATING CONDITION Ta=-20~70℃ , VSS=0V

PARAMETER		MIN	TYP	MAX	UNITS	TEST COND
PROPAGATION DELAY TIME	TPLZ	-	-	300	ns	DIN→DOUT
						CL=15pF, RL=10KΩ
FALLING TIME	TTHZ	-	-	20	us	CL=300pF OUTR/OUTG/OUTB
INPUT CAPACITOR	Tci	-	-	15	pf	

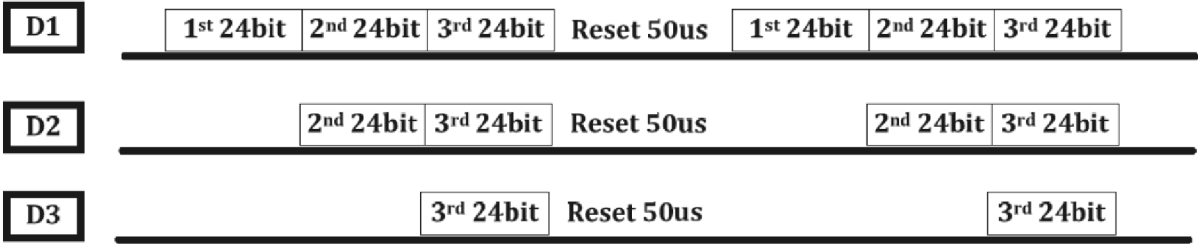
TIMING WAVE FORM



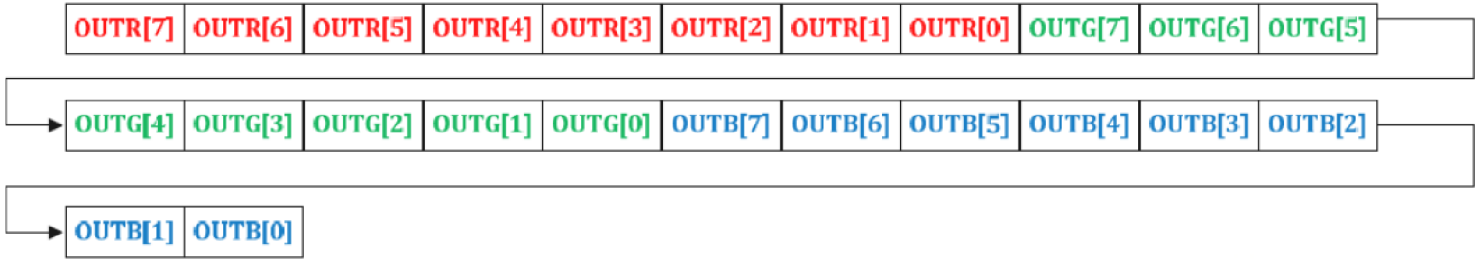
HIGH SPEED MODE

ITEM	DESCRIPTION	TYP.	ALLOWANCE
T0H	0 CODE, HIGH-LEVEL TIME	300ns	±80ns
T0L	0 CODE, LOW-LEVEL TIME	900ns	±80ns
T1H	1 CODE, HIGH-LEVEL TIME	900ns	±80ns
T1L	1 CODE, LOW-LEVEL TIME	300ns	±80ns
RES	RESET TIME	>50us	-

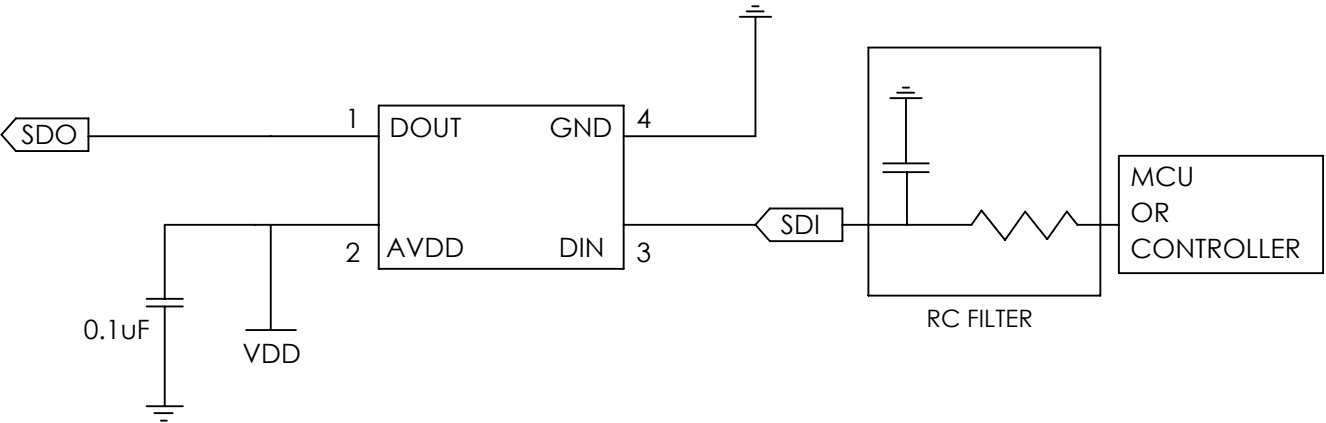
DATA COMMUNICATION



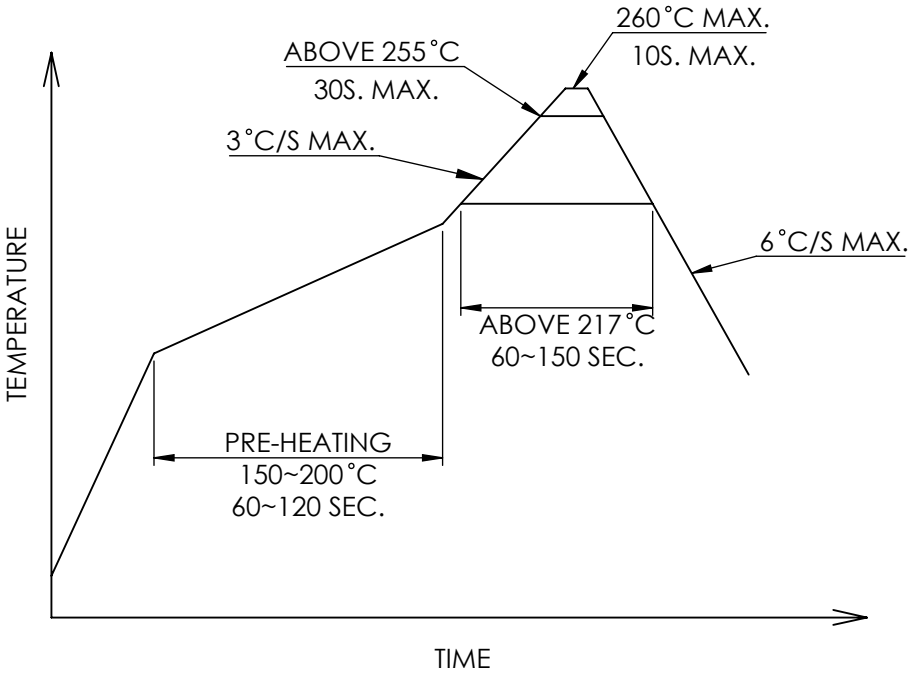
SINGLE DATA IN 24BIT FOR RGB



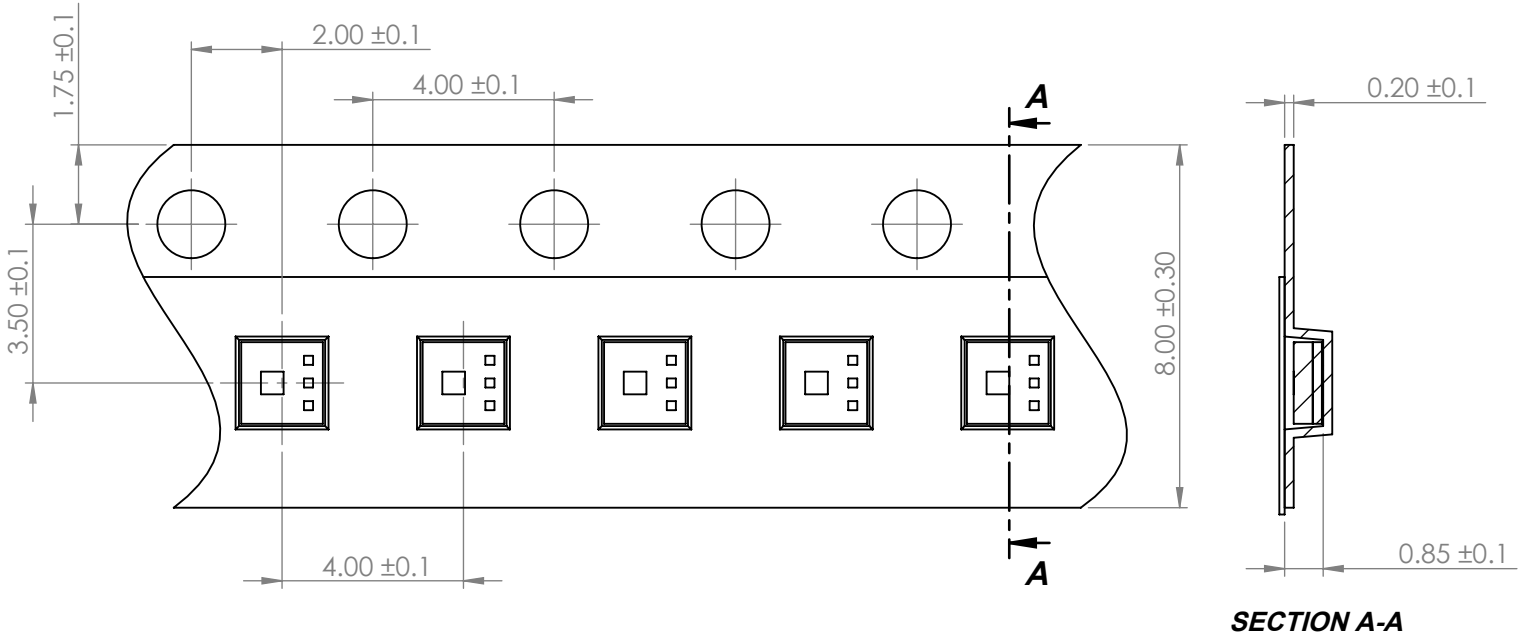
5V APPLICATION CIRCUIT



PROFILE



CARRIER TAPE DIMENSION



*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}

EXAMPLE OF USING STM32F030C8T6 TO DISPLAY RED, GREEN AND BLUE IN SEQUENCE

```

/*****
uint8_t LED_Number_Per_Ring = 60;
uint32_t Ring_0_Display_memory[60];

void Display_One_Dot(uint32_t color);
void Embeded_One(void);
void Embeded_Zero(void);
void Init_GPIOs(void);

void main(void)
{
    Init_GPIOs();
    while (1)
    {
        Ring_0_Display_memory[0] = 0xFF0000;
        Send_Whole_Ring_from_Ring_Memory();
        delay_ms(1000);
        Ring_0_Display_memory[1] = 0x00FF00;
        Send_Whole_Ring_from_Ring_Memory();
        delay_ms(1000);
        Ring_0_Display_memory[2] = 0x0000FF;
        Send_Whole_Ring_from_Ring_Memory();
        delay_ms(1000);
    }
}
*****/

```

```

/*****
void Send_Whole_Ring_from_Ring_Memory(void)
{
    uint8_t j=0;
    uint32_t x,y;
    for (i=0;i<LED_Number_Per_Ring+10;i++)
    {
        y = Ring_0_Display_memory[i];
        for (j=0;j<8;j++)
        {
            x = (y & 0x800000);
            if (x>0)
                Embeded_One();
            else
                Embeded_Zero();
            y = y << 1;
        }
        y = Ring_0_Display_memory[i];
        for (j=0;j<8;j++)
        {
            x = (y & 0x008000);
            if (x>0)
                Embeded_One();
            else
                Embeded_Zero();
            y = y << 1;
        }
        y = Ring_0_Display_memory[i];
        for (j=0;j<8;j++)
        {
            x = (y & 0x000080);
            if (x>0)
                Embeded_One();
            else
                Embeded_Zero();
            y = y << 1;
        }
    }
    delay_us(80);
}
*****/

```

```

/*****
void Embeded_Zero(void)
{
    GPIO_SetBits(GPIOB,GPIO_Pin_12);
    GPIO_ResetBits(GPIOB,GPIO_Pin_12);
    GPIO_ResetBits(GPIOB,GPIO_Pin_12);
    GPIO_ResetBits(GPIOB,GPIO_Pin_12);
}

/*****
void Embeded_One(void)
{
    GPIO_SetBits(GPIOB,GPIO_Pin_12);
    GPIO_SetBits(GPIOB,GPIO_Pin_12);
    GPIO_SetBits(GPIOB,GPIO_Pin_12);
    GPIO_ResetBits(GPIOB,GPIO_Pin_12);
}

/*****
void Init_GPIOs(void)
{
    GPIO_InitTypeDef GPIO_InitStructure;
    RCC_AHBPeriphClockCmd(RCC_AHBPeriph_GPIOB,ENABLE);

    GPIO_InitStructure.GPIO_Pin = GPIO_Pin_12
    GPIO_InitStructure.GPIO_Mode = GPIO_Mode_OUT;
    GPIO_InitStructure.GPIO_OType = GPIO_OType_PP;
    GPIO_InitStructure.GPIO_PuPd = GPIO_PuPd_UP;
    GPIO_InitStructure.GPIO_Speed = GPIO_Speed_50MHz;
    GPIO_Init(GPIOB, &GPIO_InitStructure);
}
*****/

```

*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}

LUMEX® Creating LED and LCD Solutions Together™ 425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE : 800-278-5666 FAX : 630-315-2150 WEB : WWW.LUMEX.COM	1.8(L)*1.8(W)*0.65(H)mm, SURFACE MOUNT LED, RGB FULL COLOR, 3-CHANNELs LED DRIVER WITH 8 bit PWM LINEAR CONTROL, WATER CLEAR LENS,TAPE & REEL	DATE : 2018.06.29	DRAWN BY : E.C.
		PAGE : 4 OF 4	CHKD BY : E.C.
		SCALE : NTF	APRVD BY : G.Y.
		UNIT : mm [INCH]	Pb

1.8(L)*1.8(W)*0.65(H)mm, SURFACE MOUNT LED, RGB FULL COLOR, 3-CHANNELs LED DRIVER WITH 8 bit PWM LINEAR CONTROL, WATER CLEAR LENS,TAPE & REEL

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