

5~24V
 OUT R/G/B/W 2.5~40mA
 OUT R/G/B/W 15V
 OUT R/G/B/W 256
 OUT R/G/B/W 5bits
 OUT R/G/B/W PWM 1KHz

800Kbps
 SOP8

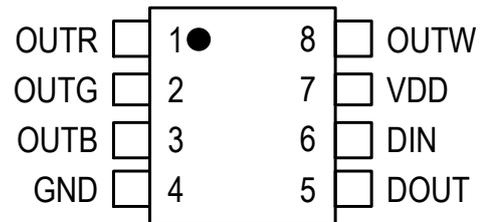
LED
 /

SM16714P LED

SM16714P

SM16714P

2.5mA~40mA OUT R/G/B/W 32
 1.2mA



SOP8

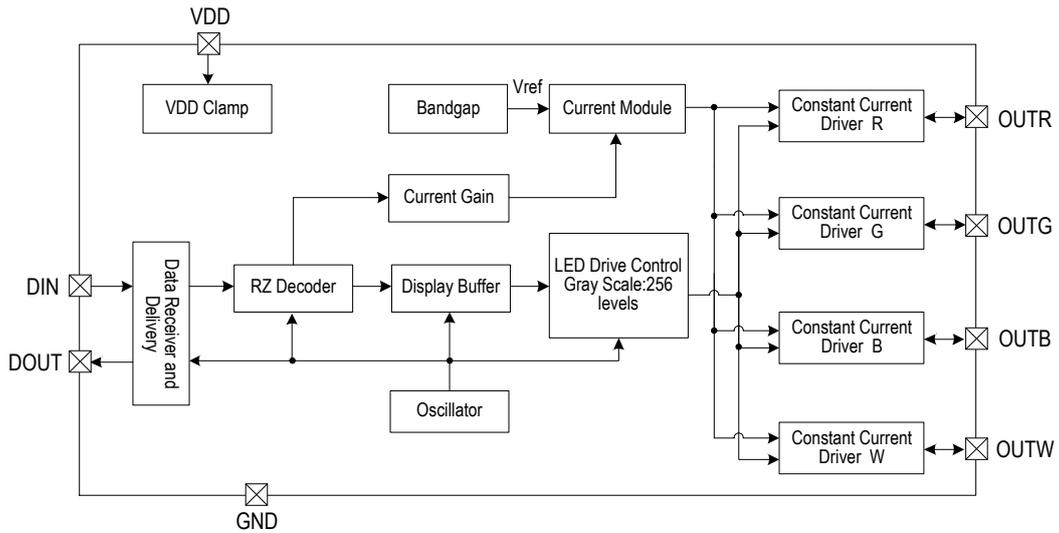


Fig.SM16714P

1	OUTR	
2	OUTG	
3	OUTB	
4	GND	
5	DOUT	
6	DIN	
7	VDD	
8	OUTW	

SM16714P	SOP8	100 /	4000 /	13

T_A=25°C

VDD		-0.4~5.4	V
VI		-0.4~VDD+0.4	V
BV _{OUT}	OUT R/G/B/W	16	V
R _{θJA}	PN 2	130	°C/W
P _D	3	0.5	W
T _J		-40~150	°C
T _{STG}		-55~150	°C
V _{ESD}	HBM	2	KV

1

2 R_{θJA} T_A=25°C

JEDEC JESD51

3

T_{JMAX} R_{θJA}

T_A

P_D = (T_{JMAX}-T_A) / R_{θJA}

VDD=5V T_A=25°C

VDD=5V TA=25°C

f_{PWM}	OUT R/G/B/W PWM	$I_{OUT}=17mA$ OUT R/G/B/W VDD	200Ω	-	1	-	KHz
t_{PLH}	6	DOUT	30pF	-	75	-	ns
t_{PHL}		DIN DOUT		-	64	-	ns
t_{TLH}	DOUT 7	DOUT	30pF	-	10	-	ns
t_{THL}				-	9	-	ns
t_r	OUT R/G/B/W 8	$I_{OUT}=17mA$ OUT R/G/B/W VDD	200Ω	-	45	-	ns
t_f		VDD	15pF	-	90	-	ns

6 7 8

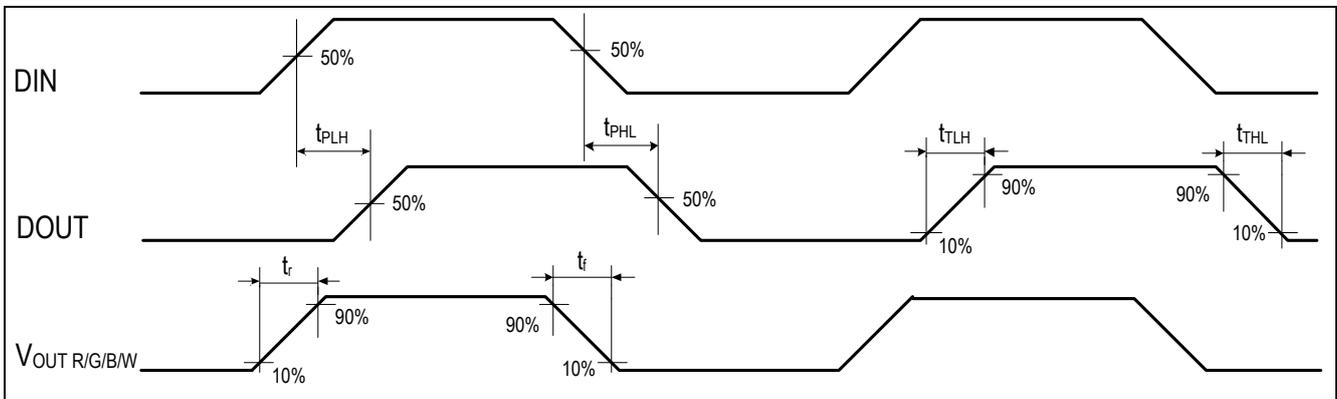


Fig. SM16714P

SM16714P

“0” “1”

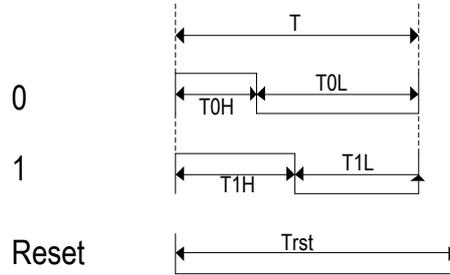


Fig. SM16714P

20bits					5bits					5bits S4-S0									
5bits					5bits					S4 S0									
W					(B)					(G)					(R)				
S4	S3	S2	S1	S0	S4	S3	S2	S1	S0	S4	S3	S2	S1	S0	S4	S3	S2	S1	S0

OUT R/G/B/W 40mA

G	S4	S3	S2	S1	S0	mA
1	0	0	0	0	0	2.5
2	0	0	0	0	1	3.7
3	0	0	0	1	0	4.9
4	0	0	0	1	1	6.1
5	0	0	1	0	0	7.3
6	0	0	1	0	1	8.5
7	0	0	1	1	0	9.7
8	0	0	1	1	1	10.9
9	0	1	0	0	0	12.1
10	0	1	0	0	1	13.3
11	0	1	0	1	0	14.5
12	0	1	0	1	1	15.7
13	0	1	1	0	0	16.9
14	0	1	1	0	1	18.1
15	0	1	1	1	0	19.3
16	0	1	1	1	1	20.5
17	1	0	0	0	0	21.7
18	1	0	0	0	1	22.9
19	1	0	0	1	0	24.1
20	1	0	0	1	1	25.3
21	1	0	1	0	0	26.5
22	1	0	1	0	1	27.7
23	1	0	1	1	0	28.9
24	1	0	1	1	1	30.1
25	1	1	0	0	0	31.3
26	1	1	0	0	1	32.5
27	1	1	0	1	0	33.7
28	1	1	0	1	1	34.9
29	1	1	1	0	0	36.1
30	1	1	1	0	1	37.3
31	1	1	1	1	0	38.5
32	1	1	1	1	1	39.7

业务电话：400-033-6518

注：如需最新资料或技术支持，请与我们联系。

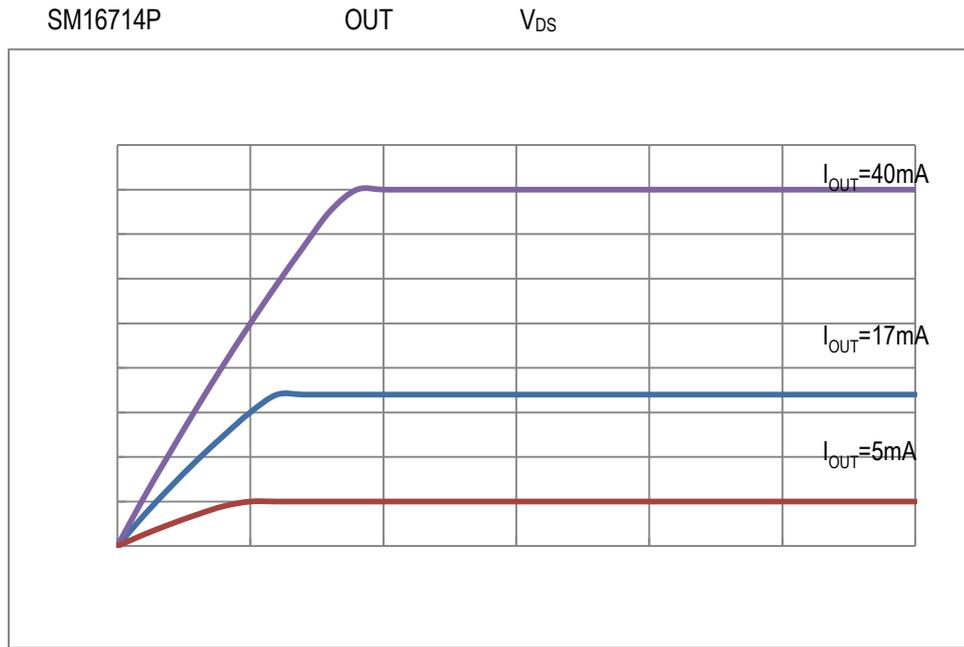


Fig. SM16714P I_{OUT} V_{DS}

OUT R/G/B/W	40mA	32	40mA
1~32			

$$I_{OUT} (mA) = 2.5 + 1.2 \times (G - 1)$$

G	1~32	G=1	$I_{OUT}=2.5mA$	G=32	$I_{OUT}=40mA$
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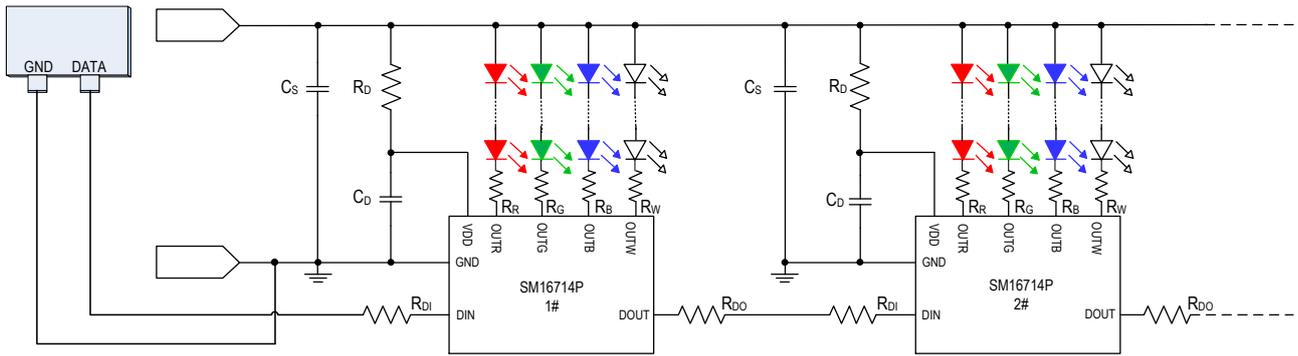


Fig. SM16714P

SM16714P	VCC	Cs	R _D	VDD					
C _D	R/G/B/W LED	R _R	R _G	R _B	R _W	DIN	R _{DI}	DOUT	R _{DO}
1	VCC		R _D						
	VDD = VCC	I _{DD} × R _D	I _{DD}	R _D	VDD > 3V	R _D			
		R _D							R _D

VCC(V)	5	6	9	12	15	18	24
R _D (Ω)	33	100	470	1K	1.5K	2K	3K

2 C_s 0.1μF~10μF

3 C_D VDD C_D 100nF

4 R_{DI} DIN

5 R_{DO} DOUT

6 R_R R_G R_B R_W OUT R/G/B/W OUT R/G/B/W

$$R_R, R_G, R_B, R_W (\Omega) = \frac{VCC \cdot V_{DS} \cdot N \times V_{LED}}{I_{OUT}}$$

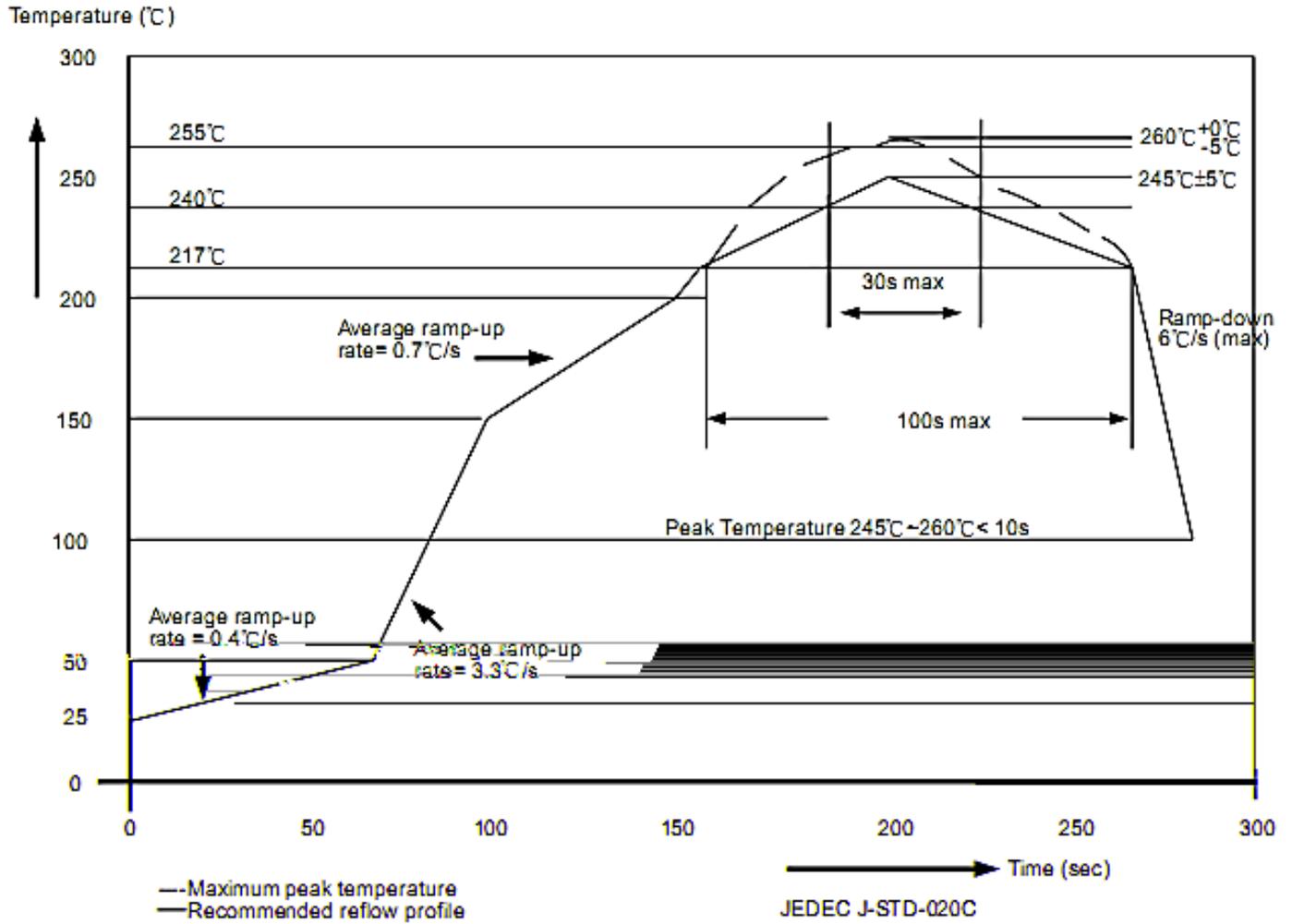
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RoHs

J-STD-020



	mm ³ < 350	mm ³ 350~2000	mm ³ ≥ 2000
<1.6mm	260+0°C	260+0°C	260+0°C
1.6mm~2.5mm	260+0°C	250+0°C	245+0°C
≥2.5mm	250+0°C	245+0°C	245+0°C

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SOP8