

Features:

- Shape: square
- Widthxheight: 28.0mmx28.0mm
- High visibility
- Emitting Color: red,green.
- No of Built-in 5mm LED Lamps :
- Ultra orange - 4pcs,green – 12pcs.
- Waterproof Package With Hood Suitable
- For Outdoor and Indoor Information Boards

Selection Guide

Part No.	Description
FYCL-S28AR4G12	28mm square Lamp cluster 4 red ,12 green,square packed

Description:

- Color Code & Chip characteristics: (Test Condition: IF=20mA)

Part No.	Built-in Lamp Package	Built-in Lamp Part No. FYL-	Chip		Lens Appearance	Electro-optical Data(At 20mA)			Viewing Angle 2 1/2 (deg)
			Material/Emitted Color	Peak Wave Length p (nm)		Vf (V)		Iv (mcd)	
						Typ	Max	Typ	
FYCL-S28AR4G12	4x5x7mm 1.0" Lead Oval	5063UEC	AlGaInP/ Ultra Orange	630	Water clear	2.10	2.50	750	X-X 45
		5063GC	GaP/GaP/ Green	570	Water clear	2.20	2.50	200	Y-Y 25

Notes:

1. 1/2 Is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Absolute Maximum Rating (Each Lamp, Ta=25 Derate above 25)

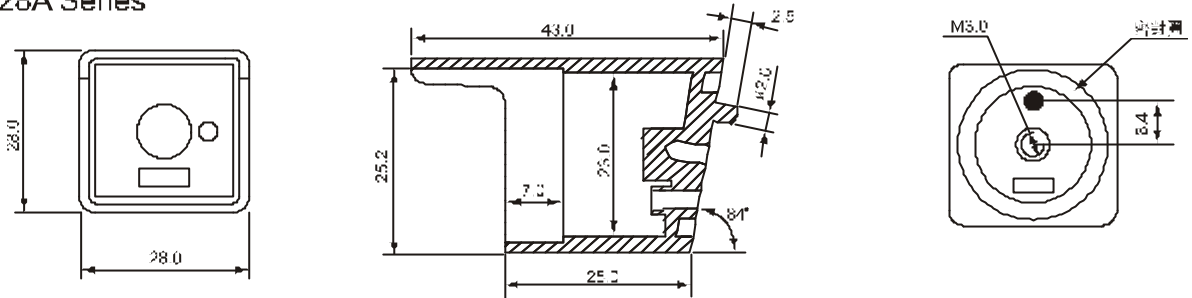
Characteristic	Symbol	Ultra Orang	Green	Unit
Spectral Line Half width		17	30	nm
Pulse Forward Current	IFp	150	150	mA
DC Forward Current	IF	30	30	mA
Reverse Current	IR	20	20	uA
Power Dissipature	PD	65	80	mW
Operating Temperature	Topr	-40 -80	-40 -80	
Storage Temperature	Tstg	-40 -85	-40 -85	
Lead Soldering Temperature		260+5	260+5	

Notes:

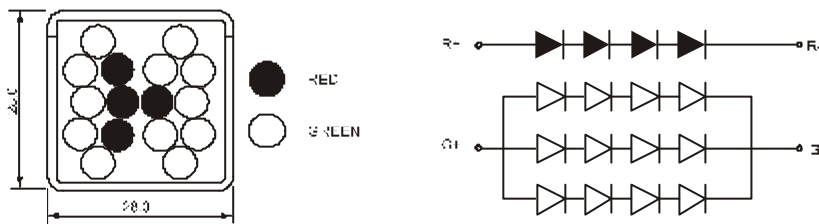
- 1.All dimensions are in millimeters(inches),Tolerance is +0.25(0.01) unless otherwise noted.
- 2.Specifications are subject to change without notice.

Package configuration & Internal circuit diagram:

FYCL-S28A Series



FYCL-S28AR4G12



Notes:

- All dimensions are in millimeters (inches)
- Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
- Specifications are subject to change without notice.

Electrical-optical characteristics: (Ta=25)

Parameter	Symbol	Ultra Orange	Green	Unit
Power Dissipation	P_{ad}	60	75	mW
Peak Forward Current*	I_{pf}	150	150	mA
Continuous Forward Current	I_{af}	25	30	mA

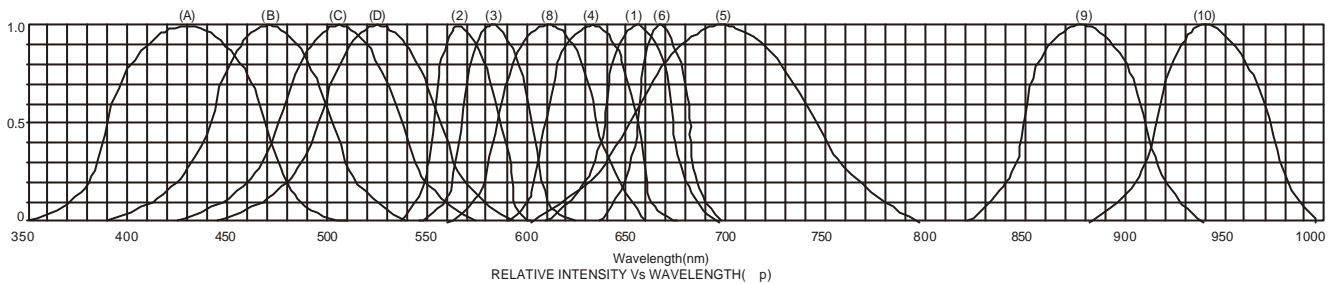
Notes:

- * Test Condition = Duty 0.1,10KHZ

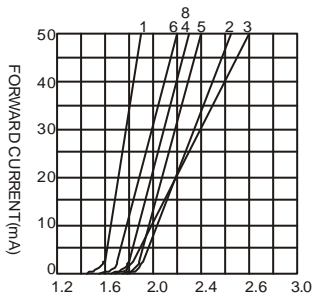
Absolute maximum ratings (Ta=25)

Reverse Voltage	5V
Reverse Current	20 μ A
Operating Temperature Range	-40 to+85
Storage Temperature Range	-40 to+85
Lead Solder Temperature (1.6mm(1/16")from body)	230 for 5 Seconds

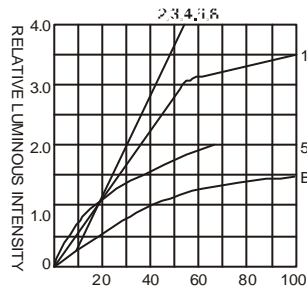
Typical electrical-optical characteristics curves:



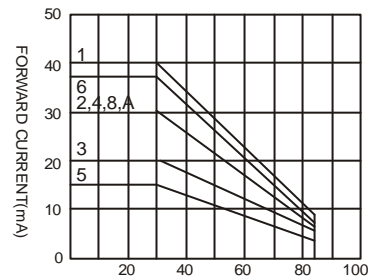
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) - GaN/SiC 430nm/Blue
- (B) - InGaN/SiC 470nm/Blue
- (C) - InGaN/SiC 505nm/Ultra Green
- (D) - InGaAl/SiC 525nm/Ultra Green



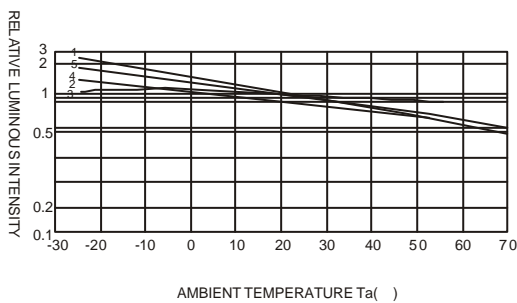
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



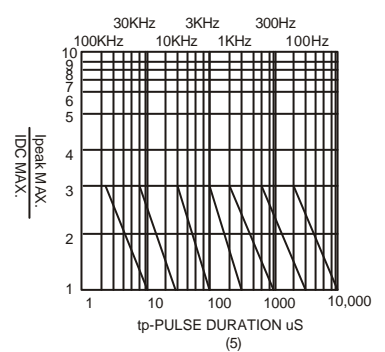
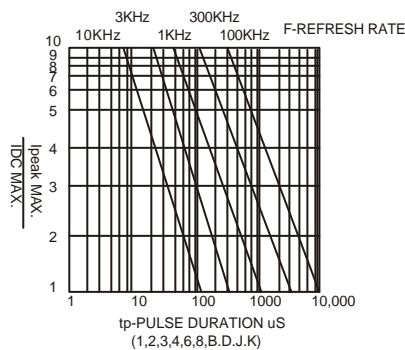
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



AMBIENT TEMPERATURE Ta()
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta()



NOTE:25 free air temperature unless otherwise specified