

Outdoor LED Lamp Display Cluster



SDC-63S68

Features

- 63mm 4x4 square Full-Color (Red, Green, Blue) High-Brightness LED outdoor display cluster.
- Pixel center-to-center distance of 16mm (dot pitch).
- Built with 32 high luminosity Red LED (TS AlInGaP), 16 high luminosity Blue (GaN), and 16 high luminosity Pure-Green (InGaN).
- Waterproof sealing O-ring, and rigid weather resistant plastic polycarbonate package.
- Wide viewing angle (110° (H) / 40° (V)).
- UV-Resistant epoxy used on LED lenses and 9mm sun shields for protection and better contrast.

Absolute Maximum Ratings

Ta= 25°C

Parameter	Symbol	Red	Pure Green	Blue	Unit
Power Dissipation	P	2.1	2.0	2.0	W
Continuous forward current (DC)	I _F	30	30	30	mA
Reverse voltage (DC)	V _R	12	10	10	V
Operating temperature	T _{opr}	-25 to +60			°C
Storage temperature	T _{stg}	-30 to +100			°C

Electro-optical Characteristics (DC)

Ta= 25°C

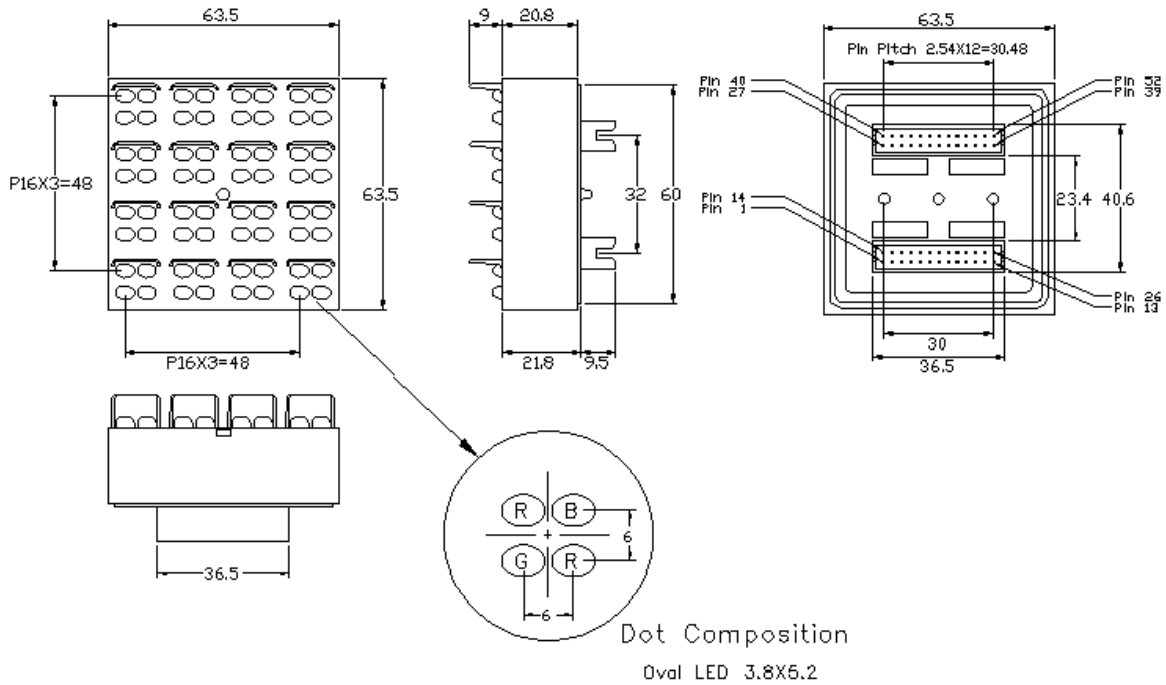
Parameter	Symbol	Radiation Color	Conditions	MIN	TYP	MAX	Unit
Forward Voltage	V _F	Red	I _F = 20 mA		3.8	4.2	V
		Pure-Green	I _F = 20 mA		3.5	4.0	V
		Blue	I _F = 20 mA		3.5	4.0	V
Luminous Intensity*	I _v	Red	I _F = 20 mA		1120		mcd
		Pure-Green	I _F = 20 mA		5850		mcd
		Blue	I _F = 20 mA		1700		mcd
Dominant Wavelength	λ _d	Red	I _F = 20 mA		625		nm
		Pure-Green	I _F = 20 mA		530		nm
		Blue	I _F = 20 mA		470		nm
Spectral Radiation Bandwidth	Δλ	Red	I _F = 20 mA		20		nm
		Pure-Green	I _F = 20 mA		45		nm
		Blue	I _F = 20 mA		30		nm
Reverse Current	I _R	Red	V _R = 12V			50	μA
		Pure-Green	V _R = 10V			50	μA
		Blue	V _R = 10V			50	μA
View Angle	2 θ _{1/2}	Red	I _F = 20 mA	110 / 40			Deg
	2 θ _{1/2}	Pure-Green	I _F = 20 mA	110 / 40			Deg
	2 θ _{1/2}	Blue	I _F = 20 mA	110 / 40			Deg

* Per LED (tolerance ±20%)

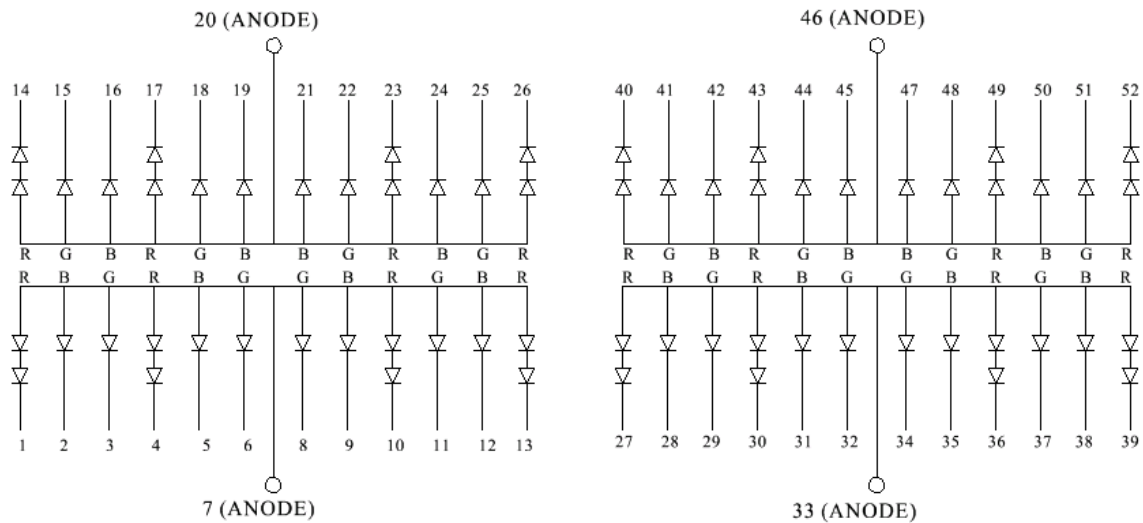
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Internal Connection



NOTES:

1. All Dimensions shown are in millimeters.
2. Cluster enclosure is made with high quality black plastic polycarbonate material.
3. Weatherproof silicone epoxy is utilized for all potting.
4. Electrical connections via two male 26-pin terminals.
5. Two alignment pins and one center hole (\varnothing 3mm) for mounting.
6. High performance / High Brightness Oval LEDs are utilized.
7. Unit weight: 92 ± 2 grams.