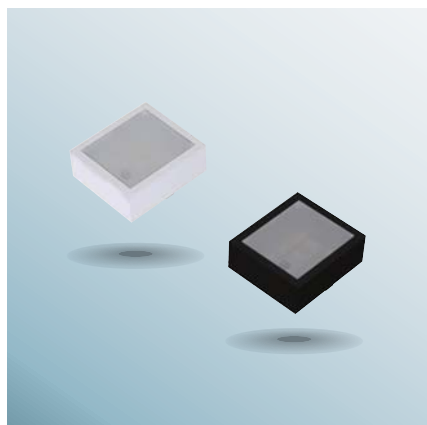


Compact High Brightness 3-Color RGB LEDs

MSL0301RGBW / MSL0401RGBW (GC-RGB Series)



Compact RGB LED with reflector ensures excellent color mixing

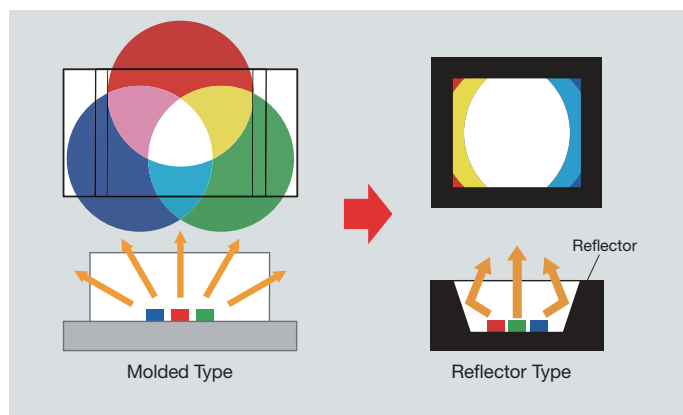
Product Outline

The industry's smallest reflector-type RGB LED, ROHM's new GC-RGB series minimize chip distances for optimum color mixing. In addition, VIA construction results in a compact form factor, reducing surface mount area considerably.

Both 4- and 6-pin types are available in a black reflector configuration for wide applicability.

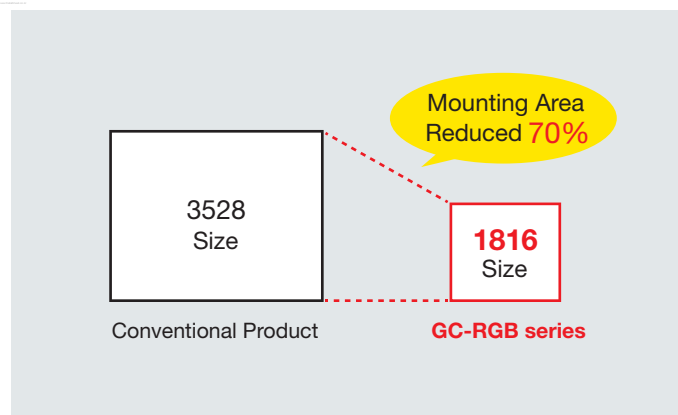
■ High brightness + Excellent color mixing

The reflector case prevents lateral light leakage, significantly improving the luminous intensity towards the front. In addition, the compact package reduces the distance between elements for superior mixing characteristics, while the black package increases contrast over conventional models for vivid color reproduction.



■ Industry's smallest reflector-type RGB LED

The GC-RGB series represent the smallest reflector-type RGB LED on the market (1816 size). This reduces surface mount area significantly, ensuring compatibility with a wide number of applications.



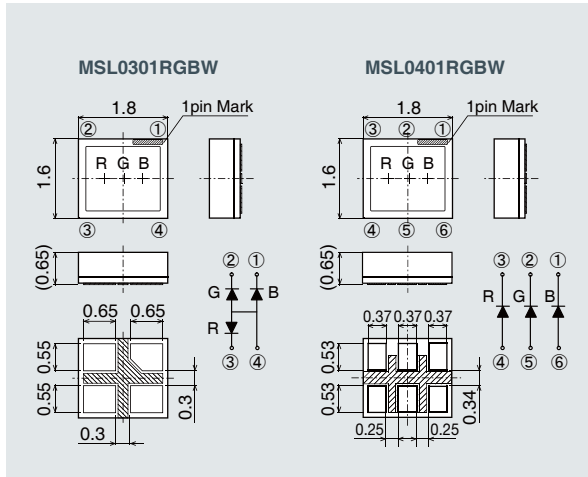
Lineup

Part No.	Element Structure	Emitted Color	Absolute Maximum Ratings (Ta=25°C)						Electric Optical Characteristics (Ta=25°C)										
			Permissible Loss Pb(mW)	Forward Current IF(mA)	Peak Forward Current IFR(mA)	Reverse Voltage VR(V)	Operating Temperature Topr(°C)	Storage Temperature Tsgl(°C)	Forward Voltage VF		Reverse Current IR		Dominant Wavelength λD			Luminous Intensity Iv			
									Typ. (V)	IF (mA)	Max. (μA)	VR (V)	Min. (nm)	Typ. (nm)	Max. (nm)	IF (mA)	Min. (mcd)	Typ. (mcd)	IF (mA)
■ MSL0301RGBW (4-pin)	AlGaInP	Red	104	40	100*	5	-40 to +85	-40 to +100	2.1	20	10	5	618	624	630	20	220	400	20
		Green	120	30					3.4		100		519	527	536		360	550	
	Blue	114	30	3.3					464		470		476	90	180				
■ MSL0401RGBW (6-pin)	AlGaInP	Red	104	40	100*	5	-40 to +85	-40 to +100	2.1	20	10	5	618	624	630	20	220	400	20
		Green	120	30					3.4		100		519	527	536		360	550	
	Blue	114	30	3.3					464		470		476	90	180				

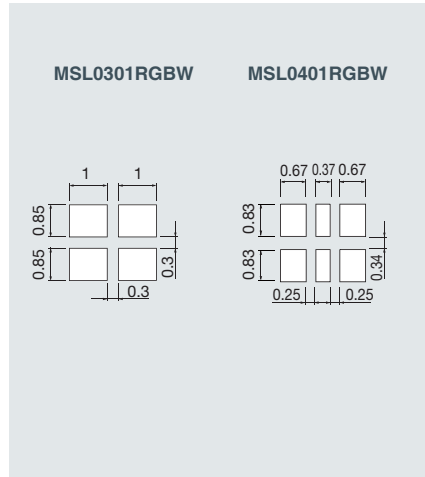
* : Duty1/5, 1kHz

MSL0301RGBW / MSL0401RGBW (GC-RGB Series)

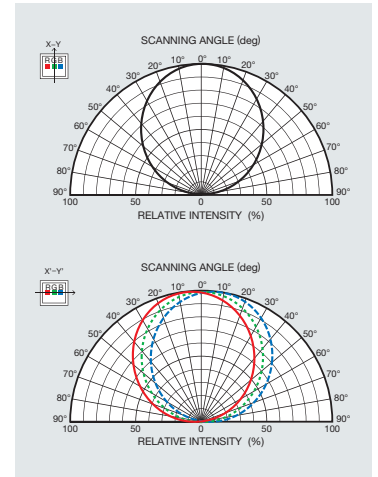
Dimensions



Recommended Solder Pattern

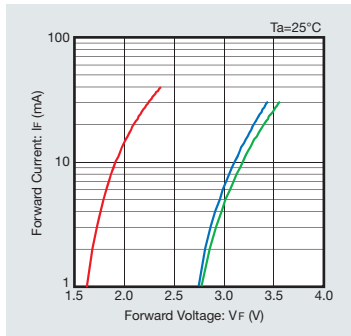


Directivity

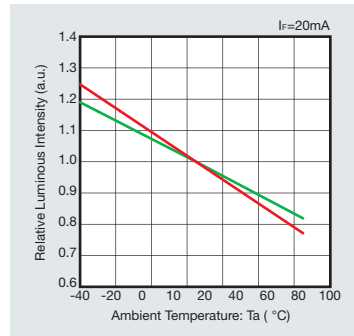


Electrical Characteristics Curves

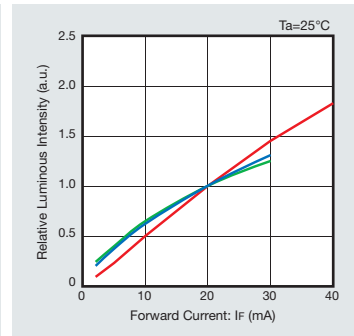
Forward Current - Forward Voltage



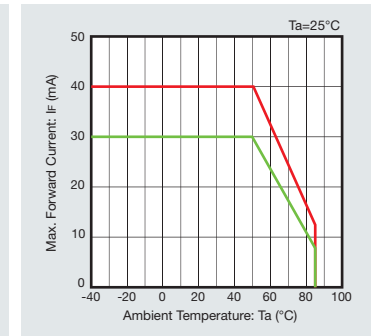
Luminous Intensity - Ambient Temp.



Luminous Intensity - Forward Current



Derating Curve



- MSL0301RGBW(R)
- MSL0401RGBW(R)
- MSL0301RGBW(G)
- MSL0401RGBW(G)
- MSL0301RGBW(B)
- MSL0401RGBW(B)

- MSL0301RGBW(R)
- MSL0401RGBW(R)
- MSL0301RGBW(G)
- MSL0401RGBW(G)
- MSL0301RGBW(B)
- MSL0401RGBW(B)

- MSL0301RGBW(R)
- MSL0401RGBW(R)
- MSL0301RGBW(G)
- MSL0401RGBW(G)
- MSL0301RGBW(B)
- MSL0401RGBW(B)

- MSL0301RGBW(R)
- MSL0401RGBW(R)
- MSL0301RGBW(G)
- MSL0401RGBW(G)
- MSL0301RGBW(B)
- MSL0401RGBW(B)

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