

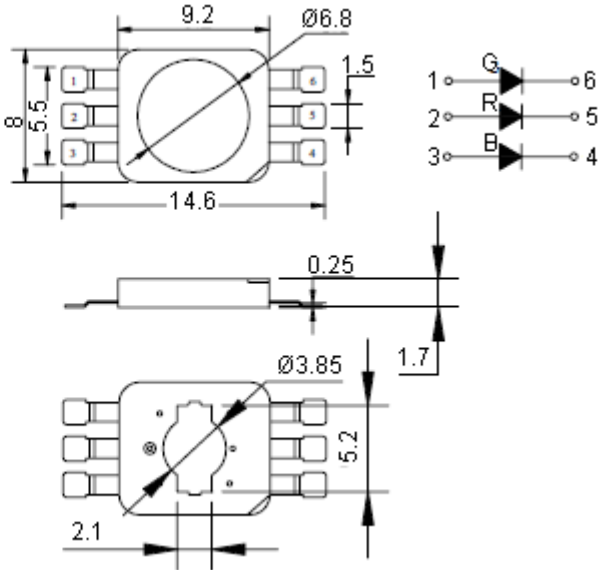
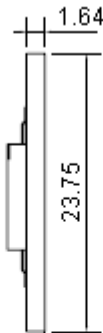
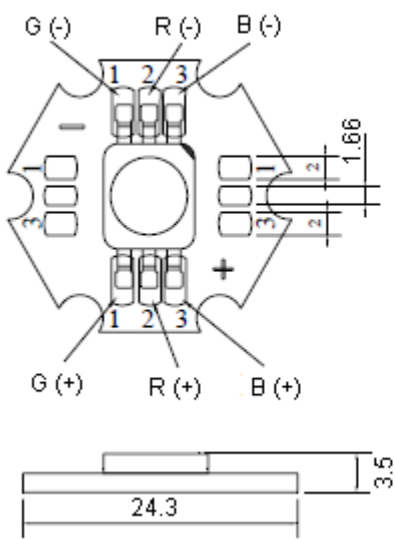
High Power LED



OS-83 Series

Features:

- Super High Luminance
- All chips can be individually driven to provide the required colour



Dimensions : Millimetres

Maximum Ratings at $T_a = 25^\circ\text{C}$

Reverse Voltage (<math>< 100 \mu\text{A}</math>)	: 5 V
D.C. Forward Current	: 350 mA
Pulse Current ($t_p \le 100 \mu\text{s}$, duty cycle = 0.005) $\times 1$: 1,000 mA
Operating Temperature Range	: -40 to $+75^\circ\text{C}$
Storage Temperature Range	: -40 to $+105^\circ\text{C}$
Soldering Temperature Reflow Soldering	: 260°C for 10 s
Soldering Temperature Hand Soldering	: 350°C for 3 s
Power Dissipation Red	: 1 W
Power Dissipation Green / Blue	: 1.3 W



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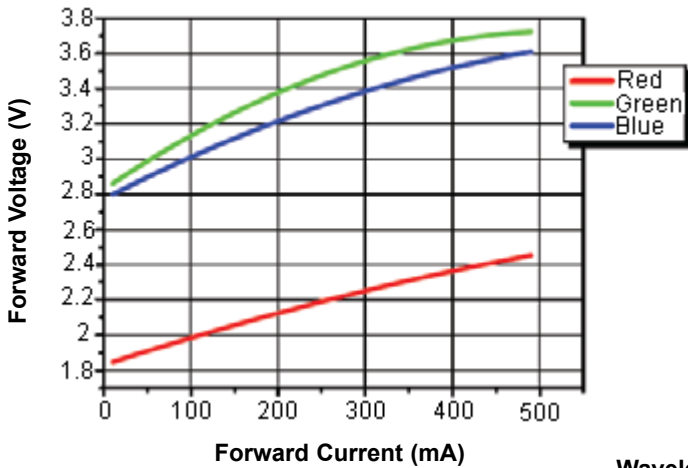
OS-83 Series



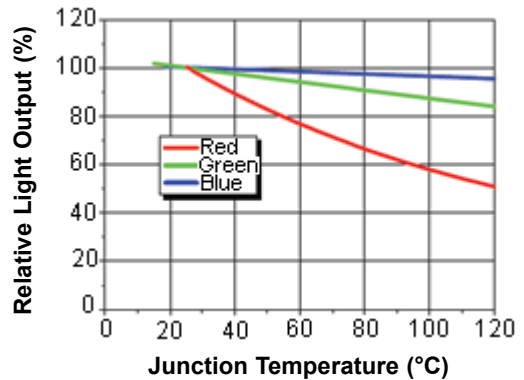
Electrical and Optical Characteristics at $T_a = 25^\circ\text{C}$

LED Chip		Lens Colours	Dominant Wavelength (nm) at 350 mA		Luminous Intensity (mcd) at 350 mA		Forward Voltage (V) at 350 mA		Viewing Angle $2\theta^{1/2}$ ($^\circ$)	Thermal Resistance Junction to Board (C / W)	Part Number
Material	Emitted Colours		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum			
A1GaInP/Si	Red	Water Clear	620	630	18	30.5	1.8	2.8	120	15	OSW-8349
InGaN / Sapphire	True Green		520	535	30.5	50	3	4			
InGaN / Al_2O_3	Blue		460	475	10.7	13.9					
A1GaInP/Si	Red		620	630	18	30.5	1.8	2.8			OSW-8339
InGaN / Sapphire	True Green		520	535	30.5	50	3	4			
InGaN / Al_2O_3	Blue		460	475	10.7	13.9					

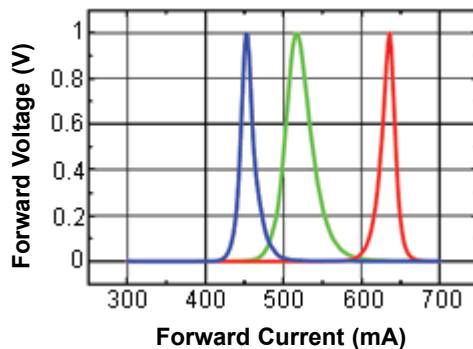
Forward Voltage Vs Forward Current ($T_a = 25^\circ\text{C}$)



Temperature of Junction vs. Relative Light Output for Blue, Green, Red ($T_a = 25^\circ\text{C}$)



Wavelength Curve for Red, Green, Blue ($T_a = 25^\circ\text{C}$)

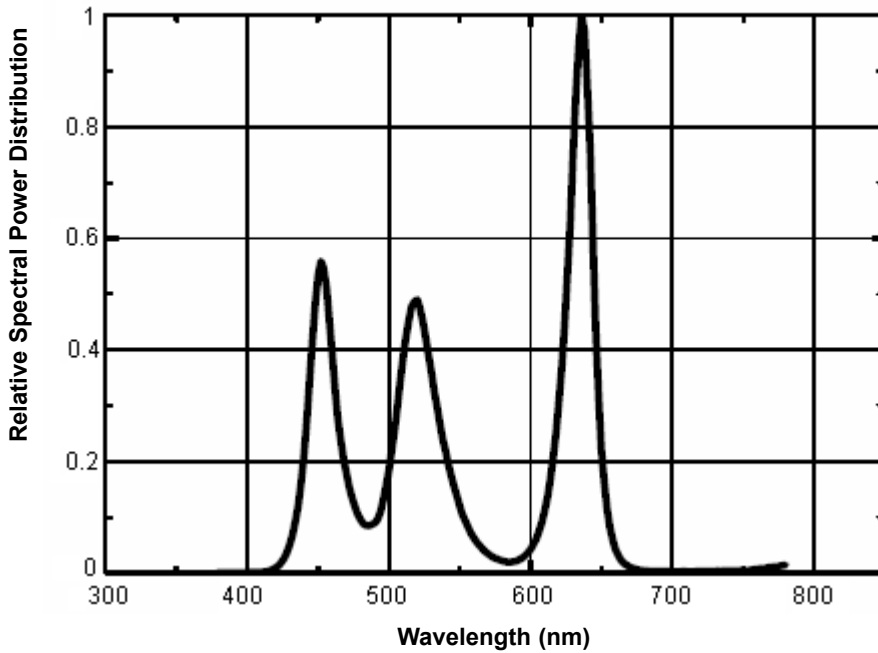


High Power LED

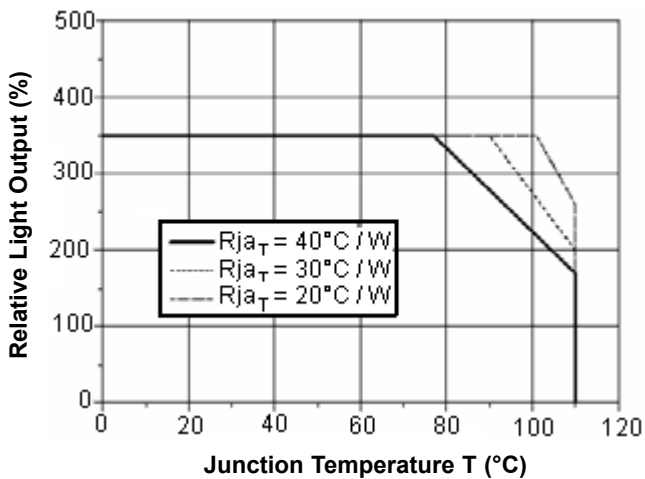
OS-83 Series



Wavelength Curve for White ($T_a = 25^\circ\text{C}$)



Ambient Temperature vs. Allowable Forward Current for 1 chip for White, Blue, Green, Red ($T_a = 25^\circ\text{C}$)



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