

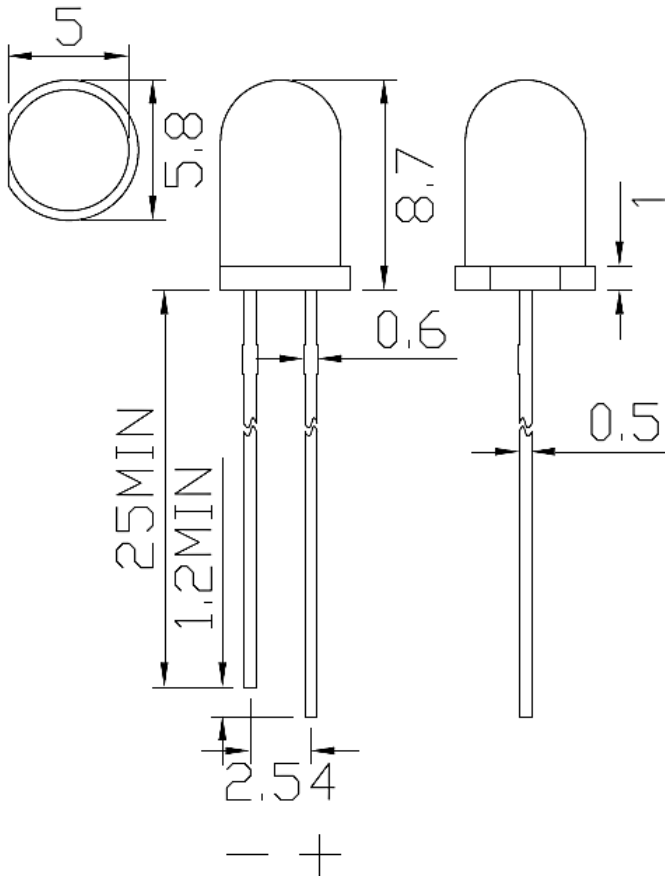


American Opto Plus LED Corp.

L513KWC

5mm Cool White LED Lamp

PACKAGE OUTLINES



ITEM	MATERIALS
Dice	InGaN
Lens Color	Clear
Emitted Color	Cool White

Notes:

1. All dimensions are in millimeters (inches)
2. Tolerances are ± 0.15 mm unless otherwise noted.



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ABSOLUTE MAXIMUM RATINGS

(Ta = 25°C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	100	mW
Forward Current	I_F	30	mA
Peak Forward Current (1/10 duty, cycle: 0.1ms Pulse Width)	I_{PF}	60	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{OPR}	-25 ~ +85	°C
Storage Humidity	T_{SH}	45% ~ 85%	°F
Storage Temperature Range	T_{STG}	-30 ~ +85	°C
Soldering Temperature	T_{SOL}	260°C for 5 seconds	

OPTICAL-ELECTRICAL CHARACTERISTICS

(Ta = 25°C)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	I_V	$I_F=20mA$	15000	--	20000	mcd
Forward Voltage	V_F	$I_F=20mA$	3.0	--	3.4	V
Suggested Forward Current	I_F	--	3	15	20	mA
Reverse current	I_R	$V_R=5V$	--	--	5	μA
Correlated Color Temperature	CCT	$I_F=20mA$	6000	--	6500	K
Chromatic Coordinates	X	$I_F=20mA$	--	0.31	--	--
	Y		--	0.32	--	
Viewing Angle	$20\frac{1}{2}$	$I_F=20mA$	--	15	--	deg

When using LEDs in circuits, it is recommended to limit the forward current to 15 mA, ≤ 20 mA.



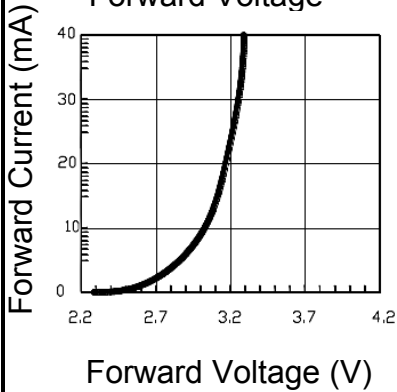
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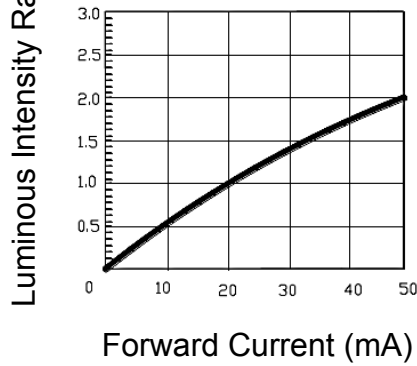
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OPTICAL CHARACTERISTIC CURVES

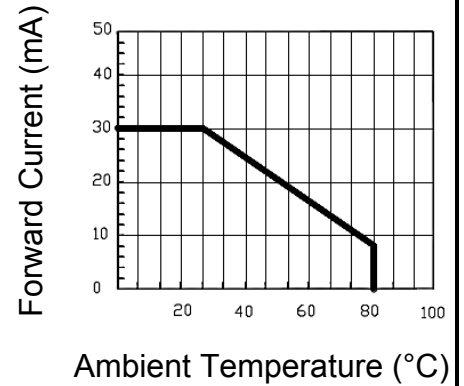
Forward Current vs. Forward Voltage



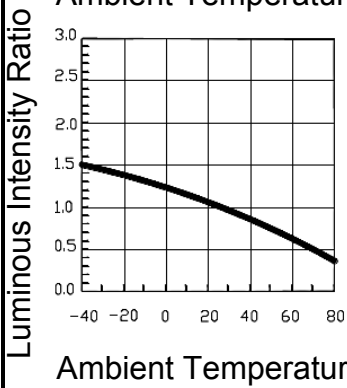
Forward Current vs. Relative Luminous Intensity



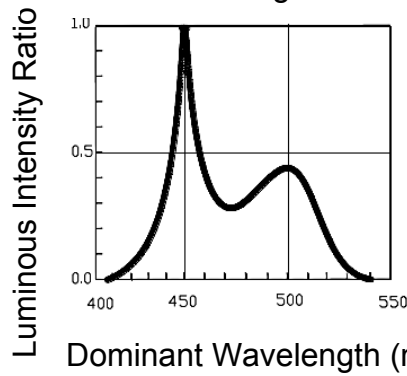
Forward Current vs. Ambient Temperature



Relative Luminous Intensity vs. Ambient Temperature



Relative Luminous Intensity vs. Main Wavelength



Radiation Diagram

