

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	2θ1/2
APKF3030SUVGBEC	HYPER RED (InGaAlP)	WATER CLEAR	110	220	100°
	GREEN (InGaN)		110	250	
	BLUE (InGaN)		50	120	

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at T_A=25°C

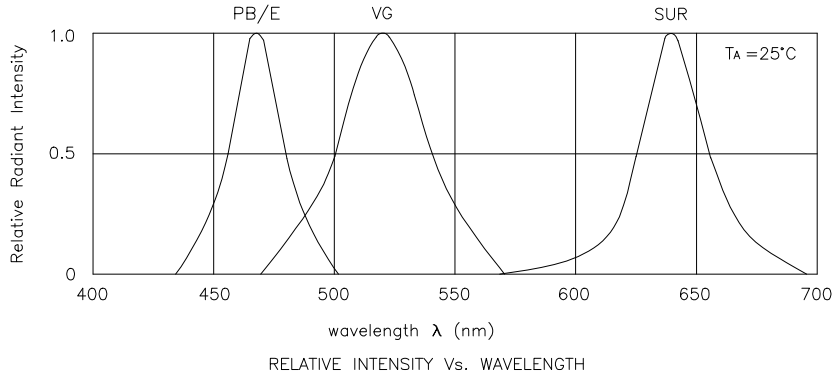
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	Hyper Red Green Blue	640 520 465		nm	I _F =20mA
λ _D	Dominate Wavelength	Hyper Red Green Blue	628 525 470		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	Hyper Red Green Blue	27 38 25		nm	I _F =20mA
C	Capacitance	Hyper Red Green Blue	45 45 110		pF	V _F = 0V; f =1MHz
V _F	Forward Voltage	Hyper Red Green Blue	1.9 3.5 3.7	2.5 4.5 4.3	V	I _F =20mA
I _R	Reverse Current	All		10	μA	V _R = 5V

Absolute Maximum Ratings at T_A=25°C

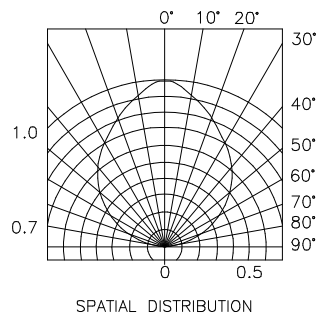
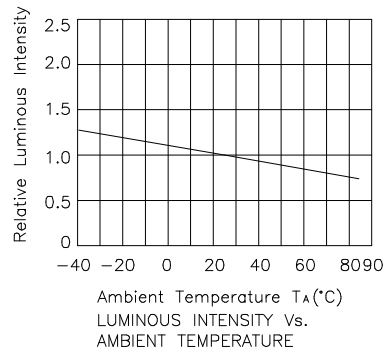
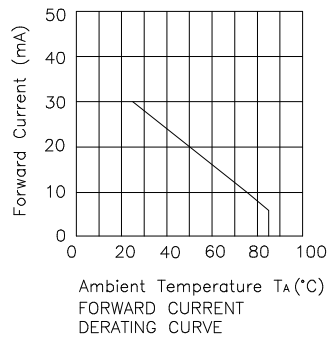
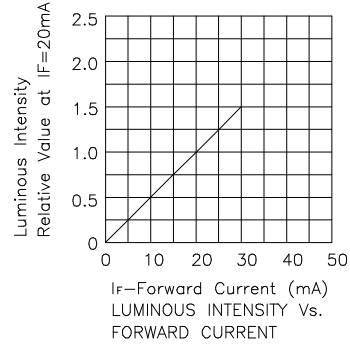
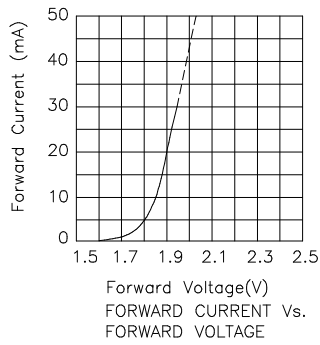
Parameter	Hyper Red	Green	Blue	Units
Power dissipation	170	105	120	mW
DC Forward Current	30	30	30	mA
Peak Forward Current [1]	185	150	160	mA
Reverse Voltage	5	5	5	V
Operating / Storage Temperature	-40°C To +85°C			

Note:

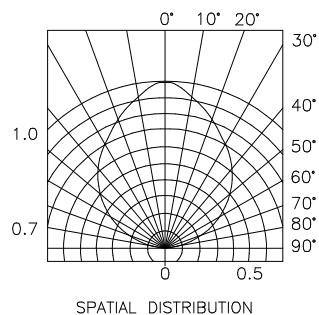
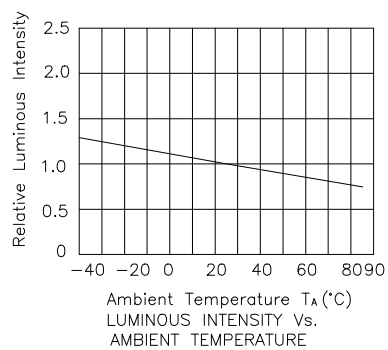
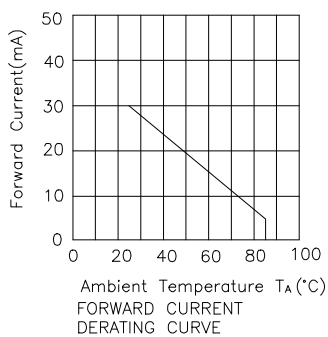
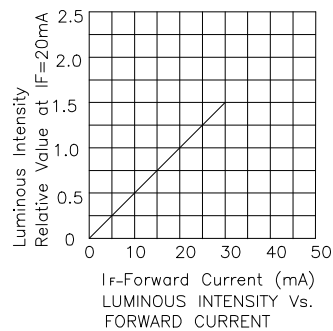
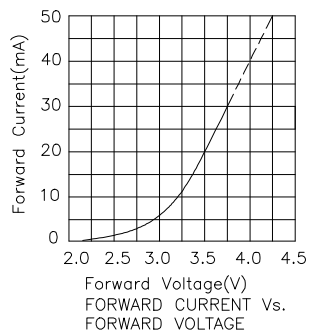
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



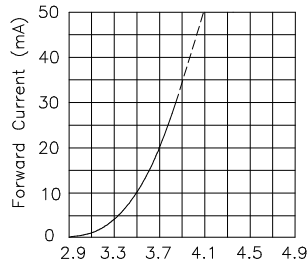
APKF3030SUVGBEC Hyper Red



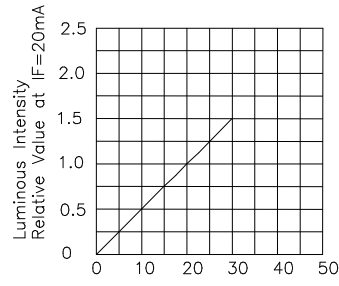
Green



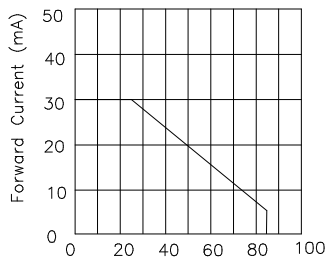
Blue



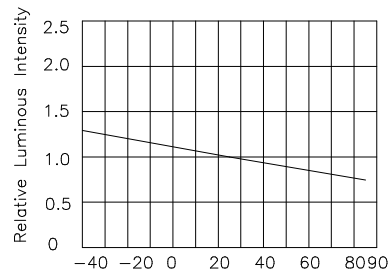
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE



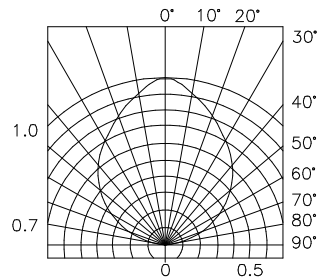
If-Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



Ambient Temperature T_A(°C)
FORWARD CURRENT
DERATING CURVE



Ambient Temperature T_A(°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

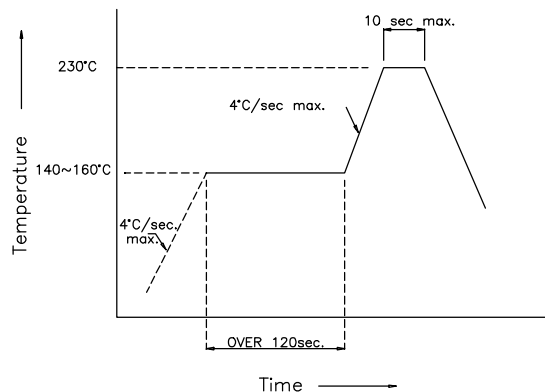


SPATIAL DISTRIBUTION

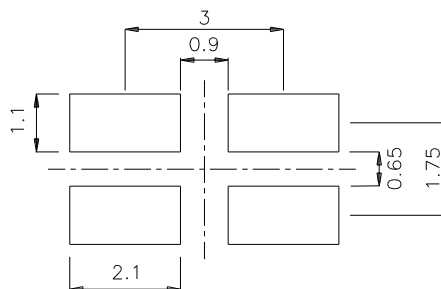
APKF3030SUVGBEC

SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



Recommended Soldering Pattern (Units : mm)



Tape Specifications (Units : mm)

