

# Change Notice

# KP Series

## Discontinuation of Red/Green LED & Replacement with Red/Green/Blue LED

Type of Change:

- Engineering     Part Number
- Product         Appearance

KP01 and KP02 Illuminated Pushbuttons with red/green bicolor LEDs will be undergoing a change. The LEDs will be discontinued, and the alternate product will be the red/green/blue LEDs. The revision applies to standard and custom products. Following are comparisons between specifications, dimensioned drawings for switches with the red/green bicolor and RGB LEDs, and a table of effected standard part numbers.



KP01 Red/Green Bicolor LEDs Will Be Replaced

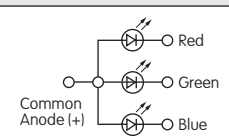
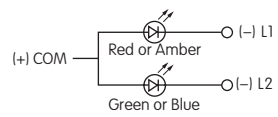
### LED Specifications Comparison



The electrical specifications shown are determined at a basic temperature of 25°C unless stated otherwise.

LEDs are an integral part of the switch and are not available separately.

Colors	Discontinued Product Bicolor Red/Green		Alternate Product Multicolor Red/Green/Blue		
	Red	Green	Red	Green	Blue
Minimum Luminous Intensity	$I_V$ 230 mcd	220 mcd	—	—	—
Standard Luminous Intensity	$I_V$ 290 mcd	270 mcd	—	—	—
Maximum Forward Current	$I_{FM}$ 30 *(25)mA	25 *(22)mA	50mA	30mA	30mA
<sup>5</sup> Forward Current with Alternating Legend	$I_F$ 25mA	15mA	25mA	15mA	—
Typical Forward Current	$I_F$ 15mA	5mA	15mA	16mA	10mA
Forward Voltage	$V_F$ 2.0V	3.1V	<sup>1</sup> 2.0V	<sup>1</sup> 2.9V	<sup>1</sup> 2.9V
Power Peak Dissipation	$P_D$ 72mW	88mW	100mW	80mW	80mW
Maximum Reverse Voltage	$V_{RM}$ 5V	7V	—	—	—
Wavelength at Peak Emission	$\lambda$ 620 ~ 630 nm	528 ~ 538 nm	<sup>1</sup> 620nm	<sup>1</sup> 525nm	<sup>1</sup> 467nm
Current Reduction Rate	$\Delta I_F$ <sup>2</sup> 0.40 mA/°C	<sup>2</sup> 0.36 mA/°C	<sup>3</sup> 0.75 mA/°C	<sup>3</sup> 0.25 mA/°C	<sup>4</sup> 0.22 mA/°C
Ambient Temperature Range	-25 ~ +50°C		-25 ~ +50°C		



\* ( ) Values for Amber, Achieved by Simultaneous Illumination of Red & Green

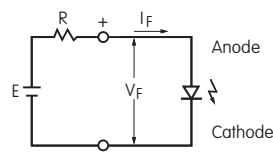
<sup>1</sup> Forward Voltage & Wavelength Values are Typical Values at the Forward Current      <sup>2</sup> Values for Temperatures Greater Than 25°C

<sup>3</sup> Values for Temperatures Greater Than 45°C      <sup>4</sup> Value for Temperatures Greater Than 40°C

<sup>5</sup> Forward Current May Need Adjustment Depending on Application Conditions

#### Notes

- The LED circuit is isolated and requires an external power source.
- If the source voltage exceeds the rated voltage, a ballast resistor is required. The resistor value can be calculated by using the formula shown here.
- Contact the factory if further details are needed.



$$R = \frac{E - V_F}{I_F}$$

Where: R = Resistor Value (Ohms)  
 E = Source Voltage (V)  
 V<sub>F</sub> = Forward Voltage (V)  
 I<sub>F</sub> = Forward Current (A)

#### Effective Date

Orders for KP01 and KP02 Series with Red/Green Bicolor LEDs will be received through September 28, 2018.

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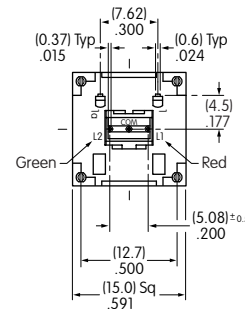
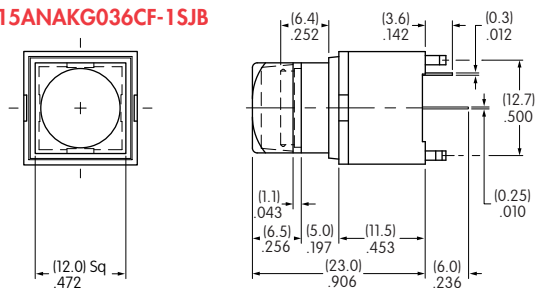
# KP Series

## Discontinuation of Red/Green LED & Replacement with Red/Green/Blue LED

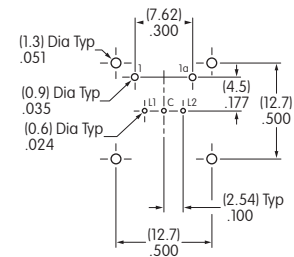
### Typical Switch Dimensions for Discontinued Red/Green Bicolor LED

#### 12.0mm Square Cap with Red/Green Bicolor LED

KP0115ANAKG036CF-1SJB

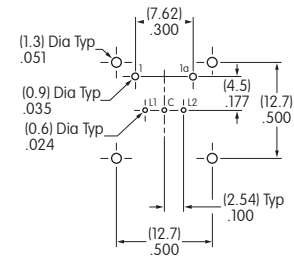
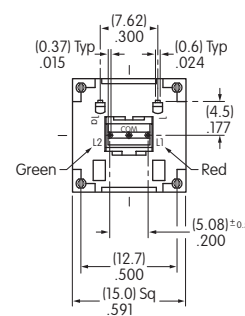
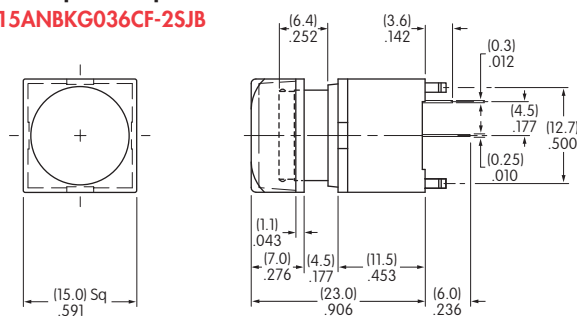


#### Footprint



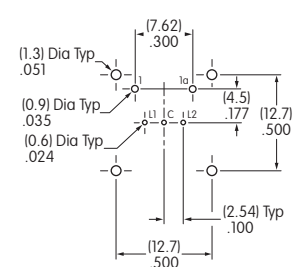
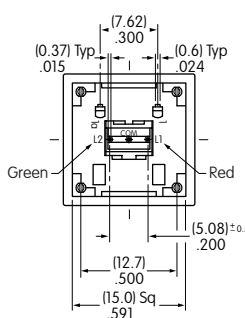
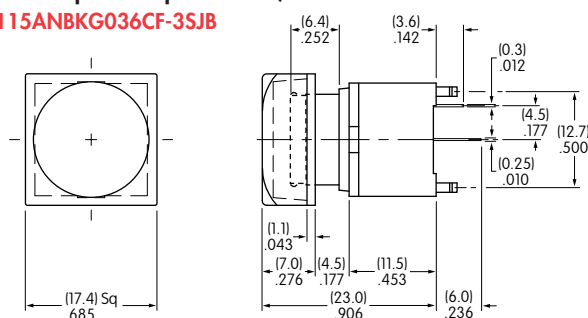
#### 15.0mm Square Cap with Red/Green Bicolor LED

KP0115ANBKG036CF-2SJB



#### 17.4mm Square Cap with Red/Green Bicolor LED

KP0115ANBKG036CF-3SJB



### KP Series Standard Part Numbers

KP01 Discontinued	KP01 Alternate	KP02 Discontinued	KP02 Alternate
KP0115ANAKG036CF	KP0115ANAKG03RGBP	KP0215ANAKG036CF	KP0215ANAKG03RGBP
KP0115ANBKG036CF	KP0115ANBKG03RGBP	KP0215ANBKG036CF	KP0215ANBKG03RGBP
KP0115ACAKG036CF	KP0115ACAKG03RGBP	KP0215ACAKG036CF	KP0215ACAKG03RGBP
KP0115ACBKG036CF	KP0115ACBKG03RGBP	KP0215ACBKG036CF	KP0215ACBKG03RGBP
---	---	KP0215ASAKG036CF	KP0215ASAKG03RGBP
---	---	KP0215ASBKG036CF	KP0215ASBKG03RGBP

Effected part numbers include standard part numbers combined with any cap size or type. Amber/Blue bicolor is not included in the change.

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# Contact No. 335

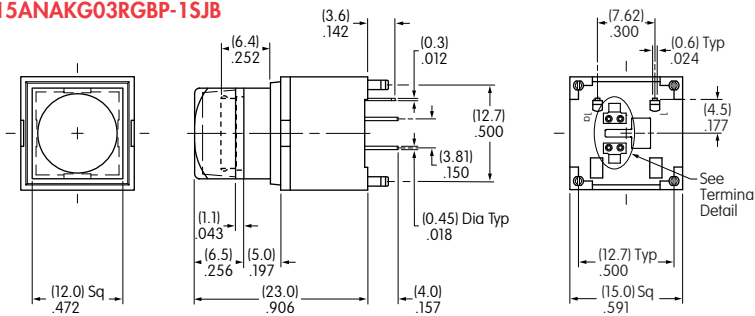
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### Discontinuation of Red/Green LED & Replacement with Red/Green/Blue LED

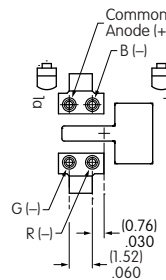
#### Typical Switch Dimensions for Alternate RGB LED

##### 12.0mm Square Cap with RGB LED

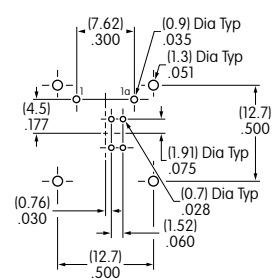
**KP0115ANAKG03RGBP-1SJB**



##### Terminal Detail

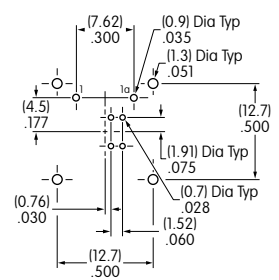
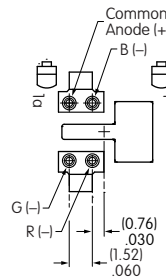
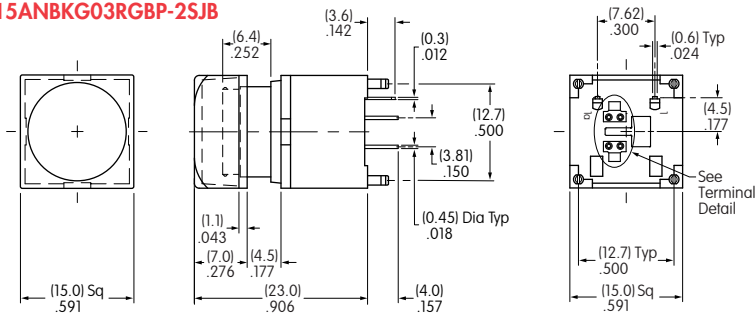


##### Footprint



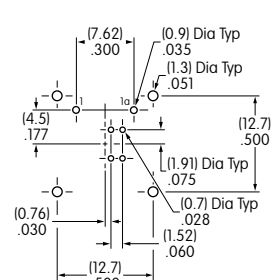
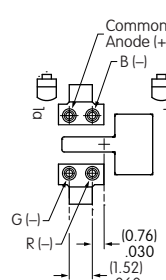
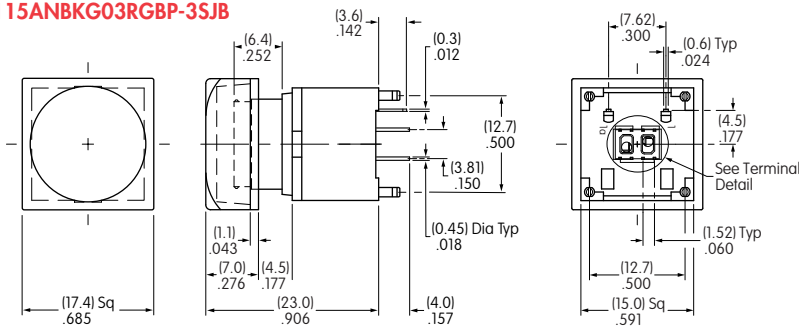
##### 15.0mm Square Cap with RGB LED

**KP0115ANBKG03RGBP-2SJB**



##### 17.4mm Square Cap with RGB LED

**KP0115ANBKG03RGBP-3SJB**



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