# Changes for Super Bright White LEDs in UB Series Pushbuttons \& Indicators 

Type of Change:<br>V Engineering<br>- Part Number<br>- Product - Appearance

The Super Bright White LEDs for UB Series pushbutton switches and indicators will be changing. Both standard and custom pushbuttons and indicators are included in the revision. The change will effect electrical specifications, which are compared below with the new specifications. Part numbers for effected standard switches and indicators are shown on the following page.


UB Series with Super Bright White LED

| CHANGES TO SPECIFICATIONS FOR SUPER BRIGHT WHITE LED |  |  |  |
| :---: | :---: | :---: | :---: |
| The electrical specifications shown are determined at a basic temperature of $25^{\circ} \mathrm{C}$. Polarity marks are on bottom of switch. The LED is an integral part of the switch and not available separately. |  | Super Bright LEDs Electrostatic Sensit | $\text { AFALTENTION } \begin{gathered} \text { ATTECROSTATIC } \\ \text { EENSITIVE DEVICES } \end{gathered}$ |
|  |  | Before <br> Change $6 B$ | $\begin{aligned} & \text { After } \\ & \text { Change } \end{aligned} 6 \mathrm{~B}$ |
| Maximum Forward Current | $\mathrm{I}_{\text {FM }}$ | 20 mA | 20 mA |
| Typical Forward Current | $\mathrm{I}_{\mathrm{F}}$ | 15 mA | 15 mA |
| Forward Voltage | $V_{F}$ | 3.3 V | 3.1 V |
| Maximum Reverse Voltage | $\mathrm{V}_{\mathrm{RM}}$ | 5 V | 5 V |
| Current Reduction Rate Above $25^{\circ} \mathrm{C}$ | $\Delta \mathrm{I}_{\mathrm{F}}$ | $0.25 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ | $0.25 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ |
| Ambient Temperature Range |  | $-25^{\circ} \mathrm{C} \sim+50^{\circ} \mathrm{C}$ | $-25^{\circ} \mathrm{C} \sim+50^{\circ} \mathrm{C}$ |

## Notes

- The LED circuit is isolated and requires an external power source.
- For best results and safe use of the LEDs, the supply voltage should be more than the LED forward voltage. In addition, an appropriately valued ballast resistor should be used. Without the ballast resistor, the LED will be damaged or destroyed. The resistor value can be calculated by using the formula shown here.


[^0]- There are no changes to the switches' external dimensions.
- Contact information is below if more details are needed.


## Effective Date

Changes for UB Series Illuminated Pushbuttons and Indicators with Super Bright White LEDs will be effective March 2022.

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# Changes for Super Bright White LEDs in UB Series Pushbuttons \& Indicators 

| EFFECTED STANDARD PART NUMBERS FOR SWITCHES |  |  |
| :---: | :---: | :---: |
| UB15SKW036B-JB | UB25RKG036B-AB | UB26NKG016B-JB |
| UB15RKW036B-JB | UB26SKW036B-AB | UB26NBKG016B-JB |
| UB15SKG036B-JB | UB26RKW036B-AB | UB15KKW016B-AB |
| UB15RKG036B-JB | UB26SKG036B-AB | UB15NKW016B-AB |
| UB16SKW036B-JB | UB26RKG036B-AB | UB15NBKW016B-AB |
| UB16RKW036B-JB | UB15KKW016B-JB | UB15KKG016B-AB |
| UB16SKG036B-JB | UB15NKW016B-JB | UB15NKG016B-AB |
| UB16RKG036B-JB | UB15NBKW016B-JB | UB15NBKG016B-AB |
| UB25SKW036B-JB | UB15KKG016B-JB | UB16KKW016B-AB |
| UB25RKW036B-JB | UB15NKG016B-JB | UB16NKW016B-AB |
| UB25SKG036B-JB | UB15NBKG016B-JB | UB16NBKW016B-AB |
| UB25RKG036B-JB | UB16KKW016B-JB | UB16KKG016B-AB |
| UB26SKW036B-JB | UB16NKW016B-JB | UB16NKG016B-AB |
| UB26RKW036B-JB | UB16NBKW016B-JB | UB16NBKG016B-AB |
| UB26SKG036B-JB | UB16KKG016B-JB | UB25KKW016B-AB |
| UB26RKG036B-JB | UB16NKG016B-JB | UB25NKW016B-AB |
| UB15SKW036B-AB | UB16NBKG016B-JB | UB25NBKW016B-AB |
| UB15RKW036B-AB | UB25KKW016B-JB | UB25KKG016B-AB |
| UB15SKG036B-AB | UB25NKW016B-JB | UB25NKG016B-AB |
| UB15RKG036B-AB | UB25NBKW016B-JB | UB25NBKG016B-AB |
| UB16SKW036B-AB | UB25KKG016B-JB | UB26KKW016B-AB |
| UB16RKW036B-AB | UB25NKG016B-JB | UB26NKW016B-AB |
| UB16SKG036B-AB | UB25NBKG016B-JB | UB26NBKW016B-AB |
| UB16RKG036B-AB | UB26KKW016B-JB | UB26KKG016B-AB |
| UB25SKW036B-AB | UB26NKW016B-JB | UB26NKG016B-AB |
| UB25RKW036B-AB | UB26NBKW016B-JB | UB26NBKG016B-AB |
| UB25SKG036B-AB | UB26KKG016B-JB | -_ |


| EFFECTED STANDARD PART NUMBERS FOR INDICATORS |  |  |
| :---: | :---: | :---: |
| UB01KW036B-JB | UB04KW016B-JB | UB04KW016B-AB |
| UB03KW036B-JB | UB06KW016B-JB | UB06KW016B-AB |
| UB01KW036B-AB | UB06BKW016B-JB | UB06BKW016B-AB |
| UB03KW036B-AB | - | - |

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[^0]:    $R=\frac{E-V_{F}}{I_{F}}$
    Where: $R=$ Resistor Value (Ohms)
    $\mathrm{E}=$ Source Voltage (V)
    $V_{F}=$ Forward Voltage (V)
    $I_{F}=$ Forward Current (A)

