# Changes to LED Specifications for JF Series Full Face Illuminated Tactiles 

Type of Change:

V Engineering
$\square$ Part Number
『 Product

\author{

- Appearance
}

The LED specifications for JF Series full face illuminated tactile switches will be undergoing changes. This will result in revisions to the electrical values, and will apply to yellow and green LEDs for standard or custom switches. Following is the comparison between the specifications before and after the changes. Effected standard part numbers are shown below.


JF Series full face illuminated tactiles will have LED revisions.

CHANGES TO LED SPECIFICATIONS FOR JF SERIES FULL FACE ILLUMINATED TACTILES

| LEDs are an integral part of the switch and are not available separately. Electrical specifications are determined at a basic temperature of $25^{\circ} \mathrm{C}$. <br> Color | Before Change |  | After Change |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Green |  | $F$ <br> Green |
| Maximum Forward Current $\quad \mathrm{I}_{\mathrm{FM}}$ | 30 mA | 30 mA | 30 mA | 30 mA |
| Typical Forward Current $\mathrm{I}_{\mathrm{F}}$ | 20 mA | 20 mA | 20 mA | 20 mA |
|  | 2.1 V | 2.3 V | 2.1 V | 2.1 V |
| Forward Voltage ${ }_{\text {F }}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}$ |
| Maximum Reverse Voltage $\quad \mathrm{V}_{\text {RM }}$ | 4 V | 4 V | 4 V | 4V |
| Current Reduction Rate Above $25^{\circ} \mathrm{C} \quad \Delta \mathrm{I}_{\mathrm{F}}$ | $0.40 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ | $0.40 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ | $0.40 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ | $0.40 \mathrm{~mA} /{ }^{\circ} \mathrm{C}$ |
| Ambient Temperature Range | $-25 \sim+70^{\circ} \mathrm{C}$ |  | $-25 \sim+70^{\circ} \mathrm{C}$ |  |

## 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.

$\begin{aligned} R & =\frac{E-V_{F}}{I_{F}} \\ \text { Where: } & R=\text { Resistor Value (Ohms) } \\ E & =\text { Source Voltage }(\mathrm{V}) \\ V_{F} & =\text { Forward Voltage }(\mathrm{V}) \\ I_{F} & =\text { Forward Current }(\mathrm{A})\end{aligned}$
- There are no changes to the switches' external dimensions.
- Contact information is below if more details are needed.


## Effected Standard Part Numbers

JF15AP1EE
JF15AP1FF

## Effective Date

Changes to LED specifications for JF Series Full Face Illuminated Tactiles will be effective December 2021.

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