Contact No. 260

Change Notice

NKK SWITCHES

HB & TL Series

Change to Super Bright White LED Specifications for HB Illuminated Pushbuttons

Type of Change:

☑ Engineering ☐ Part Number
☑ Product ☑ Appearance

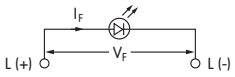
The HB Illuminated Pushbuttons will have a change to the specifications for Super Bright White LEDs. The change will effect all illuminated switches and indicators with AT629B, both standard and custom. The specification changes are outlined below, followed by effected standard part numbers.

HB Illuminated Pushbuttons

Electrical Specifications for AT629B LED

Super Bright White AT629B

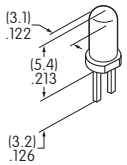
T-1 Bi-pin



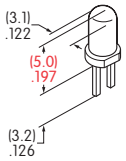
ATTENTION ELECTROSTATIC SENSITIVE DEVICES — Electrical specifications are determined at a basic temperature of 25°C.		Before Change	After Change
Single element LED is colored in OFF state.		6B	6B
Maximum Forward Current	I_{FM}	30mA	30mA
Typical Forward Current	I_F	20mA	20mA
Forward Voltage	V_F	3.6V	3.3V
Maximum Reverse Voltage	V_{RM}	5	7
Current Reduction Rate Above 25°C	ΔI_F	0.50 mA/°C	0.40 mA/°C
Ambient Temperature Range		–25 ~ +50 °C	–25 ~ +50 °C

Super Bright LED AT629B
Change to Dimensions

Before Change

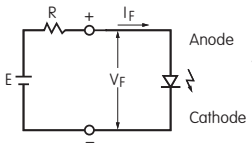


After Change



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.
- The changes to LED specifications do not effect any external dimensions of the switches.
- No changes to the Green (6F) or Blue (6G) Super Bright LEDs.
- 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_F = Forward Voltage (V)
I_F = Forward Current (A)

Part Numbers Effected by AT629B LED Change

Switches		Indicators
HB15SKW01-6B-JB	HB16SKW01-6B-JB	HB01KW01-6B-JB
HB15CKW01-6B-JB	HB16CKW01-6B-JB	HB02KW01-6B-JB

Effective Date

Changes to AT629B Super Bright White LEDs will be effective April 2016.

NKK SWITCHES CO., LTD. http://www.nkk.com E-mail: nkkswitches@nkkswitches.co.jp

715-1 Unane, Takatsu-ku, Kawasaki-shi, 213-8553 Japan TEL: +81 44 813 8001 FAX: +81 44 813 8031

Contact No. 260

Change Notice

NKK SWITCHES

HB & TL Series

Change to Super Bright White LED Specifications for TL Illuminated Toggles

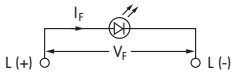
Type of Change:

☑ Engineering ☐ Part Number
☑ Product ☑ Appearance

The TL Illuminated Toggles will have a change to the specifications for Super Bright White LEDs. The change will effect all illuminated models with the 6B super bright code, both standard and custom. The specification changes are outlined below, followed by effected standard part numbers.

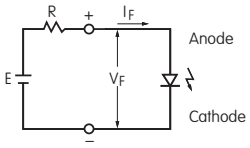
TL Illuminated Toggle

Electrical Specifications for Super Bright White LED

ATTENTION ELECTROSTATIC SENSITIVE DEVICES	Electrical specifications are determined at a basic temperature of 25°C. Lamp circuit is independent of switch operation.		Clear Toggle	
			Before Change	**After Change**
	LED Factory Assembled – **Not Available Separately**		6B	6B
Super Bright White AT629B	Maximum Forward Current	I_{FM}	30mA	30mA
	Typical Forward Current	I_F	20mA	20mA
	Forward Voltage	V_F	3.6V	3.3V
	Maximum Reverse Voltage	V_{RM}	5	7
	Current Reduction Rate Above 25°C	ΔI_F	0.50 mA/°C	0.40 mA/°C
	Ambient Temperature Range		–10°C ~ +55°C	–10°C ~ +55°C

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.
- The changes to LED specifications do not effect any external dimensions of the switches.
- No changes to the Green (6F) or Blue (6G) Super Bright LEDs.
- 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_F = Forward Voltage (V)
I_F = Forward Current (A)

Part Numbers Effected by Change to Super Bright White LED

TL22DNAW016B	TL22SNAG016B

Effective Date

Changes to TL with Super Bright White LEDs will be effective April 2016.

NKK SWITCHES CO., LTD. http://www.nkk.com E-mail: nkkswitches@nkkswitches.co.jp

715-1 Unane, Takatsu-ku, Kawasaki-shi, 213-8553 Japan TEL: +81 44 813 8001 FAX: +81 44 813 8031