## Contact No. 139

### **MS & SS Illuminated Series**

# **Change Notice LED Specifications**

Type of Change:

Engineering

□ Part Number

Product □ Appearance



**MS Illuminated Slide** 

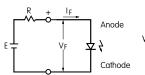
SS Illuminated Slide

The new LED specifications for MS and SS Illuminated Slides supersede all previous specifications. Changes affect all models in MS LED Illuminated, and all in SS LED Illuminated, both standard and custom switches.

LED Specifications							
Isolated Single Element		From Current LED Specifications for MS and SS Illuminated			To New LED Specifications for MS and SS Illuminated		
(+)O (-)		C	E	F	С	E	F
		Red	Yellow	Green	Red	Yellow	Green
Forward Peak Current	I <sub>FM</sub>	20mA	20mA	20mA	30mA	30mA	25mA
Continuous Forward Current	I <sub>F</sub>	16mA	16mA	16mA	16mA	16mA	16mA
Forward Voltage (I <sub>F</sub> = 16mA)	$V_{\scriptscriptstyle F}$	2.07V	2.15V	2.16V	1.98V	2.06V	2.16V
Reverse Peak Voltage	$V_{RM}$	3V	4V	4V	5V	5V	5V
Current Reduction Rate Above 25°C	$\Delta_{IF}$	0.27mA/°C			0.40mA/°C	0.42mA/°C	0.33mA/°C
Ambient Temperature Range for MS		−10°C ~ +55°C			−15°C ~ +60°C		
Ambient Temperature Range for SS		−15°C ~ +60°C			−15°C ~ +60°C		

LEDs are an integral part of the switch and not available separately. The lamp circuit is independent of switch operation.

Electrical specifications are determined at a basic temperature of 25°C. If the source voltage exceeds rated voltage, a ballast resistor is required. The resistor value can be calculated by using the formula shown here.



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

#### **Availability**

04/24/07 - Engineering Department

MS and SS Illuminated Series with new LED specifications will be available with May 2007 production.

