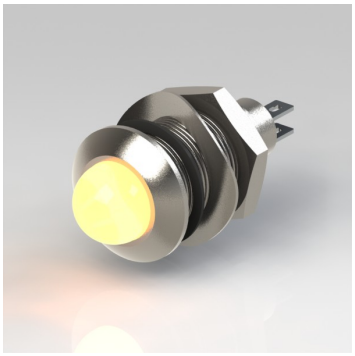
533 series

features



- **Ø12.7mm mounting**
- **Product will operate over a wide voltage range**
- **Robust bright nickel plated brass housing**
- **180º viewing angle with a colour diffused lens**
- **Fully internally potted to resist shock and vibration**
- **Sealed to IP67**
- **True bi-polar product**
- **Pack Quantity = 10 Pieces**

specifications

Typical characteristics (Ta = 25°C)

Part Number	Colour	Voltage Vac/dc	Current DC (mA)	Luminous Intensity (mcd)	Wave Length (nm)	Operating Temp. (°C)	Storage Temp. (°C)	De-rating Graphs
533-105-63	Red	12-28	6-16	95	625	-40 - +85	-40 - +85	B
533-102-63	Red	12-28	6-16	500	660	-40 - +85	-40 - +85	B
533-111-63	Yellow	12-28	6-16	45	590	-40 - +85	-40 - +85	B
533-114-63	Green	12-28	6-16	45	565	-40 - +85	-40 - +85	C
533-105-75	Red	110 Vac	6	95	625	-40 - +85	-40 - +85	B
533-102-75	Red	110 Vac	6	500	660	-40 - +85	-40 - +85	B
533-111-75	Yellow	110 Vac	6	45	590	-40 - +85	-40 - +85	B
533-114-75	Green	110 Vac	6	45	565	-40 - +85	-40 - +85	C

^ = Voltage for 20mA product is Vf at 20mA, not Vopr
- Products must be de-rated according to the de-rating information. Each de-rating graph refers to specific LEDs. Please refer to graphs on page 3.
- Luminous intensity is measured at 20mA on a discrete LED unless otherwise stated.

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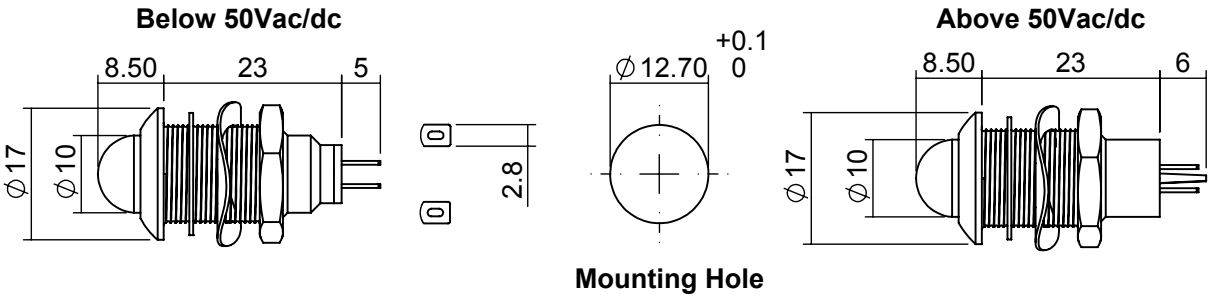
BS EN ISO 9001:2008 approved manufacturer

industrial panel lamps

533 series

technical data



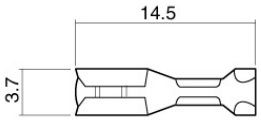
Mounting hole to be clean and burr free.

Dimensions in mm (typical)
Not to scale

housing material

push on connectors

Body	Nickel Plated Brass to BS 2874 CZ121
Nut	Stainless Steel Grade 303
Panel Seal	Viton
Termination	Copper with Silver flash finish
Lens	Polycarbonate
Encapsulation	PC5430
Lock Washer	Zinc Plated Steel
Header	Nylon 6 A82



925-000-00 is brass tin plated - for use with 533 series lamps

Dimensions in mm (typical). Not to scale.

technical characteristics

Series	Max. Power Dissipation	Max. Reverse Voltage	Panel Cutout	Nut Mounting Torque	Min. Mounting Centres	Max. Panel Thickness
533	825	N/A	12.7	1.0	19.5	1.5 - 8.0
units	mW	Vdc	mm	Nm	mm	mm

* = Current version ^ = Voltage version

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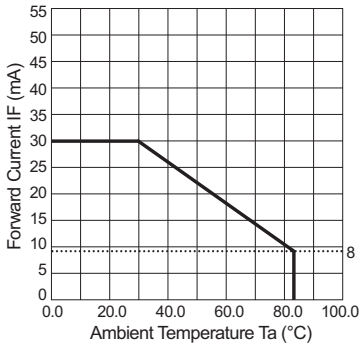
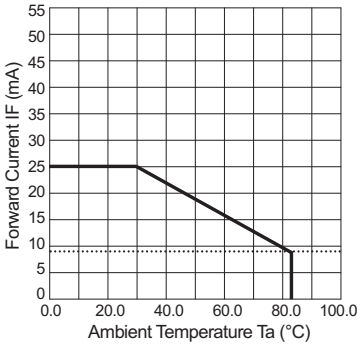
533 series

de-rating information

Derating Graph B



Derating Graph C



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533 series

design considerations

Electro-Static Discharge (ESD)

Build up of electro-static discharge occurs in many situations involving people moving and handling products. The range of possible situations is very diverse but voltage levels as high as several thousand volts can and do arise in many individual situations. When an operator charged up to these levels handles a static sensitive device, there is a very probable likelihood that the device will be irreversibly damaged. It is essential that precautions are taken at all stages during manufacture and assembly of these products. Although LEDs were never considered to be static sensitive devices, changes in manufacturing technology and materials used to produce higher intensity products over a large range of the wavelength spectrum have changed this. Marl has an approved system of ESD control from goods in, through production and into final packing and despatch. Marl recommend all users of LED based products follow the guidelines of BS 100015.

Power De-Rating

The forward voltage/ current value of an LED is dependant upon the ambient temperature of the environment in which it is operated. Therefore, care must be taken to operate the LED at the correct voltage/ current values, depending upon the ambient temperature. Consequently, a recommendation regarding operating voltages and currents is given in order to address these temperature effects. This recommendation is termed ‘de-rating’. It is usual for forward voltages and currents to be specified for ambient temperature of 25°C. However, because the values of these qualities vary with temperature, please refer to the de-rating graphs for correct operation. Marl accept no liability for any product that is operated higher than the stated voltage.

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