ES3 Series (WF1)
Card Edge Connector for LED Lighting

Connector Training Module
ES3 Series (WF1 Type) Overview

The ES3 series (ES3B002WF1) is a one piece card edge connector which allows direct connection of the LED mounting board and converter board in LED lighting devices. The unique design eliminates the need for hand soldering of wires, while limiting the number of additional connector components required. The low profile design and SMT contacts makes this connector easy to incorporate in various lighting devices such as replacement bulbs and outdoor lighting fixtures.
ES3 Series (WF1 Type) Features

• Eliminates the need to hand solder wires to connect the LED board and converter board
• One piece connector design reduces the number of components required compared to a traditional board to cable connector pair
• Reflow compatible to allow connector to be mounted in same reflow process as LEDs
• The low profile connector design ensures that it will not block any light from the LED’s mounted in close proximity
• White LCP is used for the insulator to help reflect light/heat
• SMT contacts are mostly hidden under the insulator
• UL/cUL certified
Basic Dimensions

*All units in mm
ES3 Series Application Example

- ES3 Connector
- LED Board
- Heat Sink
- AC/DC Converter Board
- LED Replacement Bulb
# General Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of contacts</td>
<td>2</td>
</tr>
<tr>
<td>Rated current</td>
<td>1A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>200V AC/DC</td>
</tr>
<tr>
<td>Dielectric Withstand Voltage</td>
<td>500VACrms</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-40 degC to +105 degC</td>
</tr>
<tr>
<td>Mounting height</td>
<td>1.6mm above LED board</td>
</tr>
<tr>
<td>Mating durability</td>
<td>20 cycles</td>
</tr>
<tr>
<td>Insulation material</td>
<td>White LCP</td>
</tr>
<tr>
<td>Contacts</td>
<td>Copper alloy / Tin plating</td>
</tr>
</tbody>
</table>
Summary

• One-piece card edge connector
• Allows direct connection of the LED mounting board and converter board in lighting devices
• Eliminates the need for hand soldering of wires
• Limits the number of additional connector components required
• Low profile design, SMT contacts
• Easy to incorporate in lighting devices
  • Replacement bulbs
  • Outdoor lighting fixtures