6 segments of 60 leds making a total led count of 360

LED Segment

L1

L2

~20V

60 leds in total
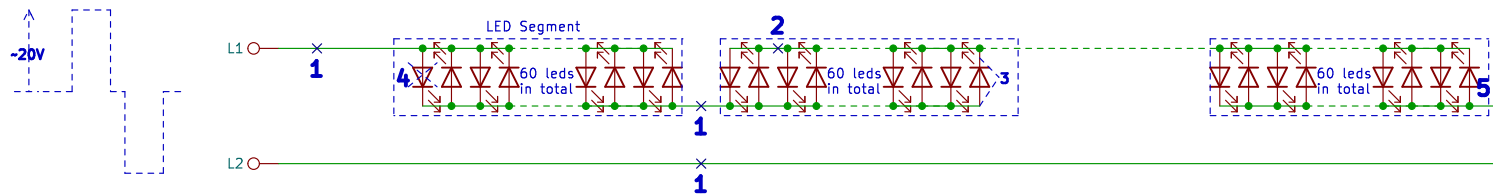
60 leds in total

60 leds in total

1) A break in the cable between segments or on the supply / return wires will result in the whole LED string not working.

2) A break in the cable within a segment will result one or more LEDs in that segment not working. The remaining LEDs will carry more current whcih could lead to them buring out and cascade failure of that segment.

3) A short accross one led caused by either LED failure or something like corrosion between LED leads will cause all LEDs in that segment to not work. The remaining segments will see a higher current whcih could cause cascade failure.

4) A open circuit LED will just cause that LED to not work. The remaining LEDs in that segment with the same polarity will see a higher current. possible cascade failure if LEDs are driven hard or there are multiple type 4 failures.

5) The LED "works" but is damaged either due to being overdriven or more likly poor LED quality. This LED can have a high turn on voltage or reverse leakage issues.
The other segments will light normally but the segment with this LED will have dim LEDs in the remaining part of the segment.