

AVX Corporation continues to develop new connectors and accessories specifically for the Solid State Lighting (SSL) market. This 2nd generation brochure captures our entire family of Board-to-Board and Wire-to-Board connectors in a simple matrix format with additional application views. All of these connectors have been developed based on customer application requirements with simplicity, modularity and reliability as the key driving factors. AVX is committed to the SSL market, our technology road map contains leading edge passive electronic components and connectors to meet the demanding market requirements for the future lighting systems. Today we offer:

#### CONNECTORS

- Wire to Board – Series 9175, 9176, 9177
- Board to Board – Series 9159

#### CIRCUIT & TRANSIENT PROTECTION

- TransGuard – VC Series
- MultiGuard – MG Series
- EMI Filters – W2/W3 Series
- TransFeed – V2F Series

#### CAPACITORS

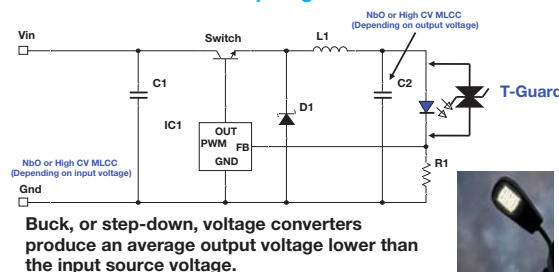
- Input Capacitors – OxiCap® (fail / safe), HiCV, Flexiterm®
- Output Capacitors – Oxicap® (fail / safe), Flexiterm®, HiCV
- Capacitor Array – voltage doublers
- BestCap® (supercapacitor) – LED Camera Flash

#### Products used in:

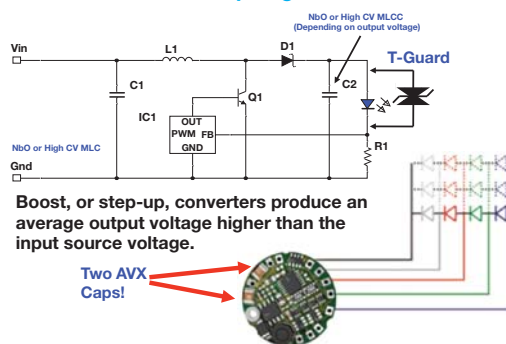
- Off-line AC (120 V or 220 V)
- Low voltage 12 to 24 VAC / DC
- Specialty Applications 37.5V, 75V, etc.
- Battery Operation 3v to <12v

### Typical Schematics

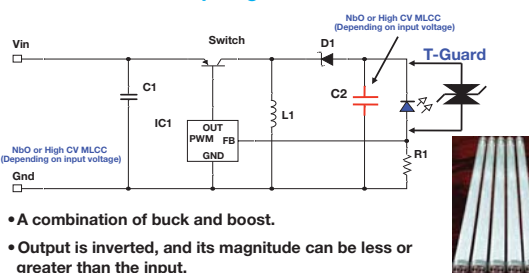
#### LED Driver Topologies – BUCK



#### LED Driver Topologies – BOOST



#### LED Driver Topologies – BUCK/BOOST



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**NEW PRODUCT UPDATE**



**Solid State Lighting  
Connector Update**

|                          | Wire-to-Board (WTB)                                                                      |                         |                         |                       |                         |
|--------------------------|------------------------------------------------------------------------------------------|-------------------------|-------------------------|-----------------------|-------------------------|
| Application Overview     | Discrete WTB for ruggedized applications; SSL, Transportation, Industrial and Commercial |                         |                         |                       |                         |
| Series                   | 11-9159                                                                                  | 00-9175                 | 00-9176                 | 70-9176               | 00-9177                 |
| Description              | 2pc WTB Connector                                                                        | WTB Connector           | WTB Connector           | WTB Contact           | WTB Connector           |
| Color Options            | Black or White                                                                           | Black or White          | Black or White          | Black or White        | Black or White          |
| Part Number              | 11 9159 00x 101 116                                                                      | 00 9175 00x 001 006     | 00 9176 00x 00x 106     | 70 9176 001 5xx 006   | 00 9177 00x 0xx x06     |
| Sizes                    | 2p - 6p                                                                                  | 2p - 3p                 | 1p - 3p                 | 1p                    | 1p - 3p                 |
| Application              | Mates with 20-9159                                                                       | Discrete WTB            | Discrete WTB            | Discrete WTB          | Discrete WTB            |
| Electrical               |                                                                                          |                         |                         |                       |                         |
| Current Rating           | 5 Amps / Contact                                                                         | 1 Amp / Contact         | 10 Amps / Contact       | 10 Amps / Contact     | 15 Amps / Contact       |
| Voltage Rating           | 125 VAC                                                                                  | 125 VAC                 | 250 VAC                 | 250 VAC               | 600 VAC                 |
| Mechanical               |                                                                                          |                         |                         |                       |                         |
| Wire Size                | 22-24 AWG w/cover                                                                        | 26-28 AWG               | 18-24 AWG               | 18-24 AWG             | 14-20 AWG               |
| Insulation O.D.          | 1.1mm to 1.6mm                                                                           | 0.7mm to 1.0mm          | 1.1mm-2.1mm             | 1.1mm-2.1mm           | 2.75mm-4.25mm           |
| Wire Type                | Solid or Stranded                                                                        | Solid or Stranded       | Stranded                | Stranded              | Stranded                |
| Insulator Material       | Nylon 46; UL94VO                                                                         | Nylon 46; UL94VO        | Nylon 46; UL94VO        | Nylon 46; UL94VO      | Nylon 46; UL94VO        |
| Contact Material         | Phosphor Bronze                                                                          | Phosphor Bronze         | Phosphor Bronze         | Phosphor Bronze       | Phosphor Bronze         |
| Plating                  | Gold / Tin over Nickel                                                                   | Tin over Nickel         | Tin over Nickel         | Tin over Nickel       | Tin over Nickel         |
| Durability               | 10 Cycles                                                                                | 3 Cycles                | 3 Cycles                | 3 Cycles              | 3 Cycles                |
| Environmental            |                                                                                          |                         |                         |                       |                         |
| Operating Temperature    | -40°C to +125°C                                                                          | -40°C to +125°C         | -40°C to +125°C         | -40°C to +125°C       | -40°C to +125°C         |
| Extensions / Accessories |                                                                                          |                         |                         |                       |                         |
| Termination Tools        | N                                                                                        | Y                       | Y                       | Y                     | Y                       |
| Termination Caps         | N                                                                                        | N                       | Y                       | Y                     | N                       |
| Strain Relief Caps       | Y                                                                                        | N                       | Y                       | Y                     | N                       |
| Top 3 Customer Benefits  | Mates with standard BTB                                                                  | Gas tight termination   | Gas tight termination   | Gas tight termination | Gas tight termination   |
|                          | Locking latch                                                                            | Automotive level tested | Automotive level tested | Low profile           | Automotive level tested |
|                          | 2p-6p availability                                                                       | Positive strain relief  | Positive strain relief  | Low cost              | Positive strain relief  |

|                          | Board-to-Board (BTB)    |                          |
|--------------------------|-------------------------|--------------------------|
| Application Overview     | End-to-End PCB Stacking |                          |
| Series                   | 00-9159                 | 10/20-9159               |
| Description              | 1pc Card Edge           | 2pc Plug / Socket        |
| Color Options            | Black or White          | Black or White           |
| Part Number              | 00 9159 00x 001 106     | x0 9159 00x 101 116      |
| Sizes                    | 2p - 5p                 | 2p - 6p                  |
| Application              | 1.6mm thick PCB         | Top Side SMT             |
| Electrical               |                         |                          |
| Current Rating           | 3 Amps / Contact        | 5 Amps / Contact         |
| Voltage Rating           | 250 VAC                 | 125 VAC                  |
| Mechanical               |                         |                          |
| Insulator Material       | Nylon 46; UL94HB        | Nylon 46; UL94VO         |
| Contact Material         | Phosphor Bronze         | BeCu / Phos Bronze       |
| Plating                  | Tin over Nickel         | Gold / Tin over Nickel   |
| Durability               | 5 Cycles                | 10 Cycles                |
| Environmental            |                         |                          |
| Operating Temperature    | -55°C to + 125°C        | -40°C to +125°C          |
| Extensions / Accessories |                         |                          |
| Top Load Socket          | N                       | Y                        |
| Locking Clip             | N                       | Y                        |
| Shorting Socket          | N                       | Y                        |
| Top 3 Customer Benefits  | Low Cost / Tin Plated   | Miniature size; X, Y & Z |
|                          | High contact force      | Reparability             |
|                          | Accepts standard PCB    | Locking clip             |

