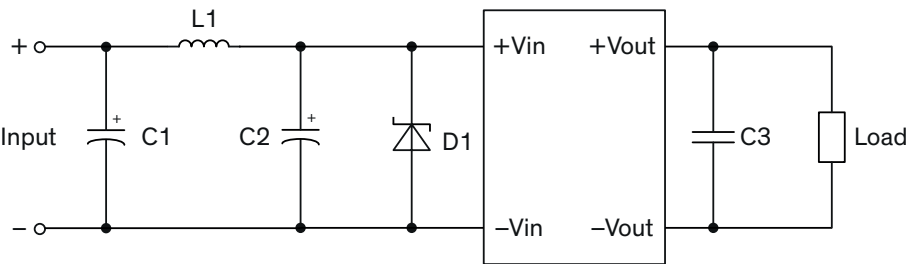


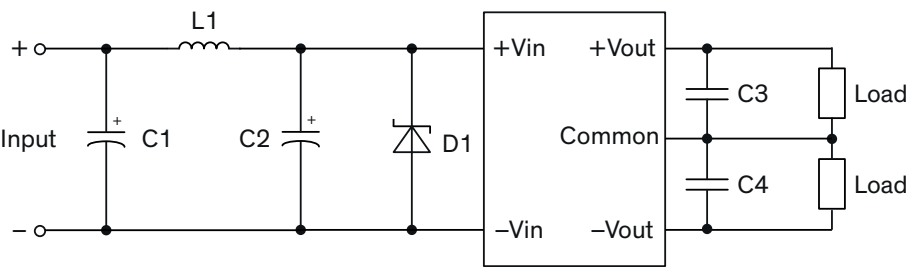
Surge & EFT filter

Single output models



| Surge & EFT filter (single output models) | | | | |
|-------------------------------------------|----------------------------|-----------------------|--------------------------|--------------------------------|
| Model | C1, C2 | L1 | D1 | C3 |
| TRV 1-051xM | 1000 μ F / 35 V KZM | 10 μ H TCK-172 | 5 V / 3000 W SMDJ5.0A | 22 μ F / 25 V 1206 MLCC |

Dual output models

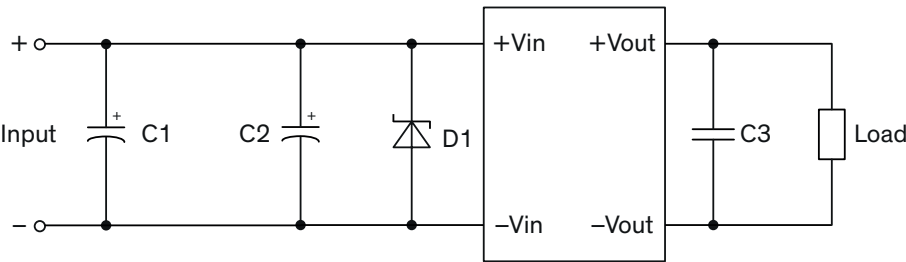


| Surge & EFT filter (dual output models) | | | | |
|-----------------------------------------|----------------------------|-----------------------|--------------------------|--------------------------------|
| Model | C1, C2 | L1 | D1 | C3, C4 |
| TRV 1-052xM | 1000 μ F / 35 V KZM | 10 μ H TCK-172 | 5 V / 3000 W SMDJ5.0A | 22 μ F / 25 V 1206 MLCC |

TCK-172 datasheet: www.tracopower.com/overview/tck-172

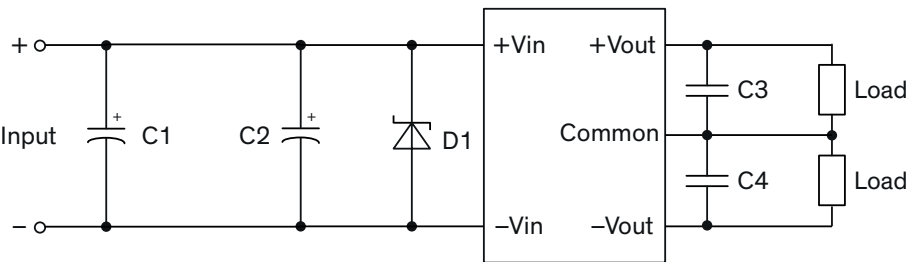
Surge & EFT filter

Single output models



| Surge & EFT filter | | | | |
|--------------------|----------------------------|--------------------------|--------------------------|--------------------------------|
| Model | C1 | C2 | D1 | C3, C4 |
| TRV 1-121xM | 1000 μ F / 35 V KZM | 330 μ F / 50 V KY | 30 V / 3000 W SMDJ30A | 22 μ F / 25 V 1206 MLCC |
| TRV 1-151xM | | | | |
| TRV 1-241xM | | | | |

Dual output models

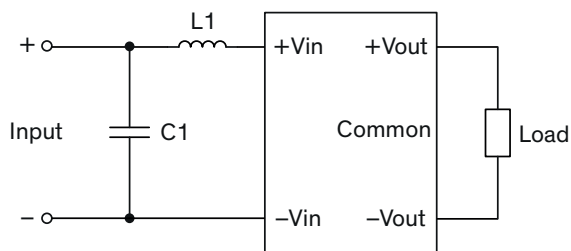


| Surge & EFT filter | | | | |
|--------------------|----------------------------|--------------------------|--------------------------|--------------------------------|
| Model | C1 | C2 | D1 | C3 |
| TRV 1-122xM | 1000 μ F / 35 V KZM | 330 μ F / 50 V KY | 30 V / 3000 W SMDJ30A | 22 μ F / 25 V 1206 MLCC |
| TRV 1-152xM | | | | |
| TRV 1-242xM | | | | |

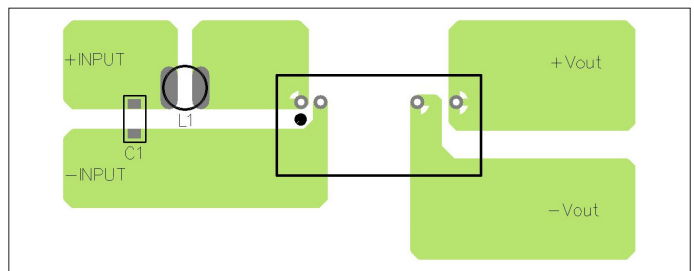
EMI Consideration

Suggested filter to comply with EN 55032 Radiated Emissions Class A limits

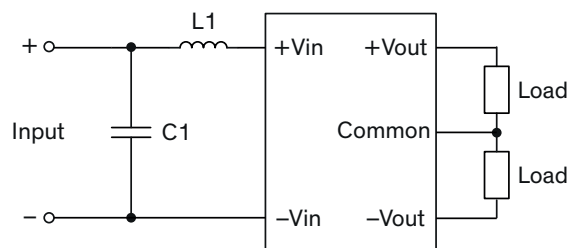
Single output models



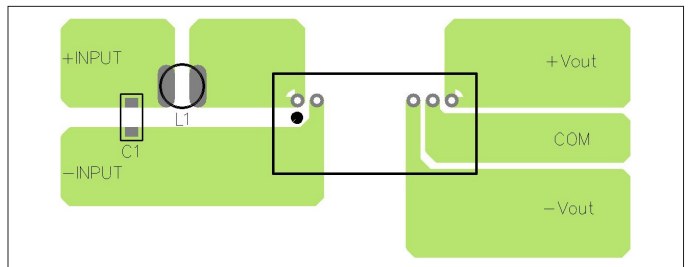
PCB layout suggestion



Dual output models



PCB layout suggestion



Suggested components to comply with EN 55032 Radiated Emissions Class A limits

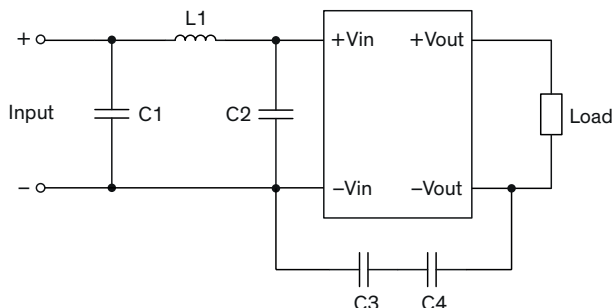
| Model | C1 | L1 |
|-------------------------------------------|-------------------------------|-----------------------|
| TRV 1-05xxM | 22 μ F / 25 V / 1206 MLCC | 2.2 μ H / TCK-171 |
| TRV 1-12xxM TRV 1-15xxM TRV 1-24xxM | 10 μ F / 50 V / 1206 MLCC | 10 μ H / TCK-172 |

TCK-171 datasheet: www.tracopower.com/overview/tck-171

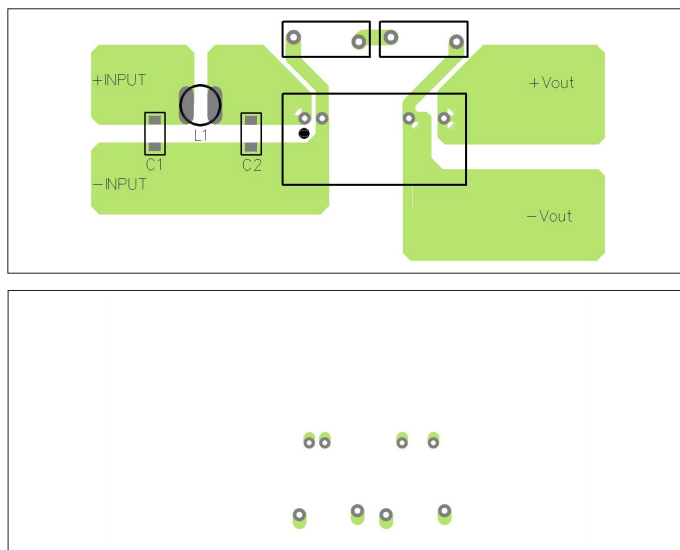
TCK-172 datasheet: www.tracopower.com/overview/tck-172

Suggested filter to comply with EN 55032 Conducted and Radiated Emissions Class B limits

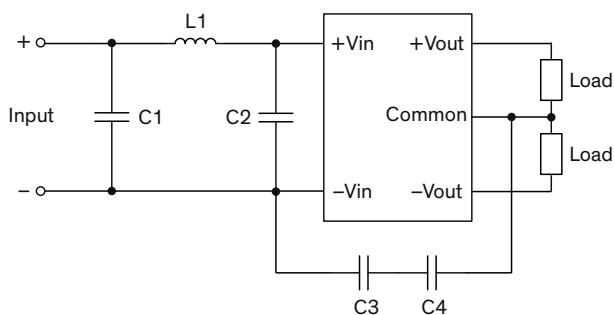
Single output models



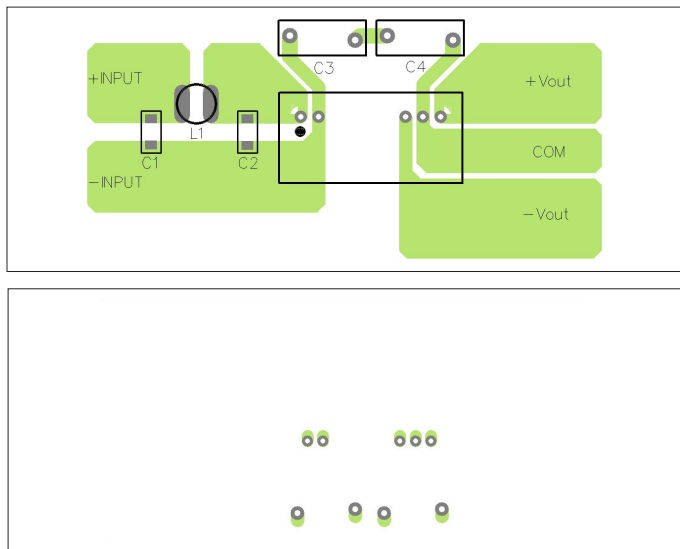
PCB layout suggestion



Dual output models



PCB layout suggestion



Suggested components to comply with EN 55032 Conducted and Radiated Emissions Class B limits

| Model | C1, C2 | C3, C4 | L1 |
|-------------------------------------------|--------------------------|-------------------------------|------------------|
| TRV 1-05xxM | 22 μF / 25 V / 1206 MLCC | 47 pF / Y1 TDK CD45 series | 2.2 μH / TCK-171 |
| TRV 1-12xxM TRV 1-15xxM TRV 1-24xxM | 10 μF / 25 V / 1206 MLCC | | 10 μH / TCK-172 |

TCK-171 datasheet: www.tracopower.com/overview/tck-171

TCK-172 datasheet: www.tracopower.com/overview/tck-172