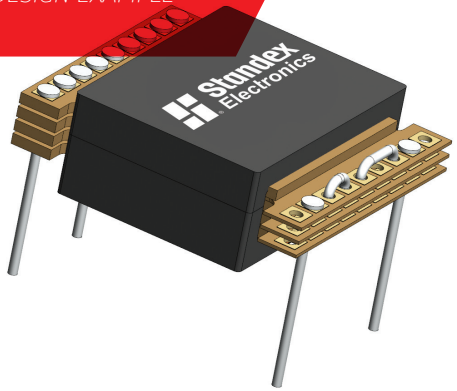
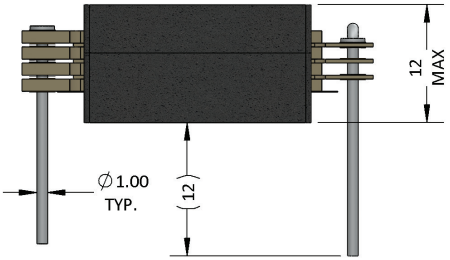
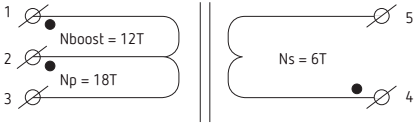
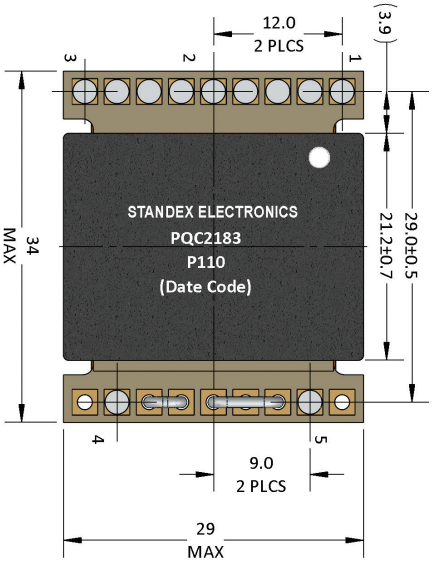
# SIZE 110
# 150W-700W

*DESIGN EXAMPLE*




## TRANSFORMER DESIGN | EXAMPLE - PQC2183

**ELECTRICAL SPECIFICATIONS**

| | |
|---|---|
| Topology | Boost Forward |
| Input Voltage | 120-150VDC |
| Output Power (Output Voltage/Current After Rectification) | 200-300VDC/500-250mA |
| Output Power (Output Voltage/Current After Rectification) Ns1 | 0-30VDC/4A |
| Turns Ratio - Np/Nboost/Ns | 18T/12T/6T |
| Switching Frequency | 250kHz |
| Duty Cycle, Max. At Low Input Voltage | 60.0% |
| Efficiency At Full Power Calculated | 98.3% (2.5W losses) |
| Ambient Temp, Max. | -55°C to +85°C |
| Mounted On Heatsink With Max. Temp. | +65°C |

| | |
|---|---|
| Temp. Rise, Hotspot Ext. Heatsink, Max. | +25°C |
| Minimum Isolation Voltage | |
| Pri. To Secondary Ns1 And To Core | 1000VDC |
| Secondary To Core | 500VDC |
| Primary Inductance, Np, Min. | 900µH |
| Primary Resistance, Rdc, Np, Max. | 140mOhm |
| Secondary Resistance, Rdc, Ns, Max. | 18mOhm |
| Boost Winding Resistance, Rdc, Nboost, Max. | 80mOhm |
| Leakage Inductance 2-3/4-5 Shorted, Typ. | 2µH |
| Weight Range (Approximate) | 30-120grams |

NOTES:

1) FOR OPTIMAL PERFORMANCE A THERMALLY CONDUCTIVE SUBSTRATE BETWEEN FERRITE & HEATSINK SHOULD BE UTILIZED
2) PATENTED SURFACE MOUNT HEADER AVAILABLE
3) HEATSINK & THERMAL SOLUTIONS AVAILABLE