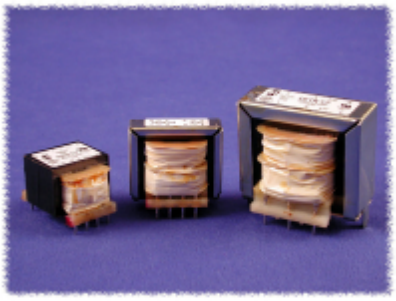
HAMMOND MANUFACTURING

*Quality Products. Service Excellence.*

# Low Voltage PC Board Mount *160-161 Series*

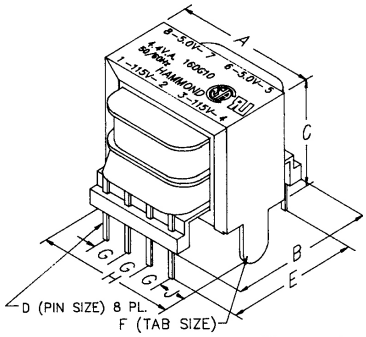
**Low Voltage, P.C. Board Mount Vertical - 115 & 115/230 V Primary**

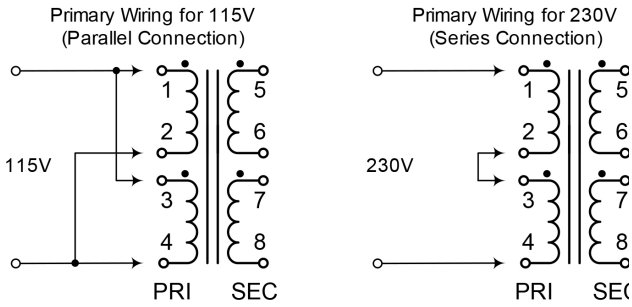


## Features

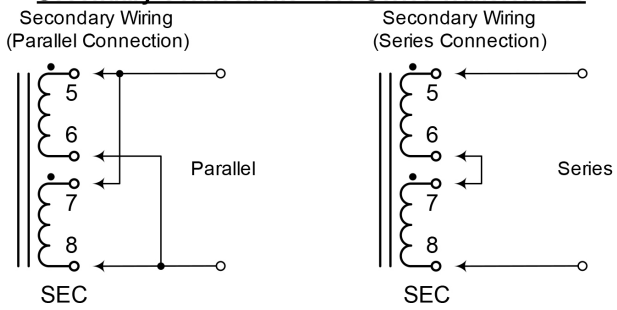
- 20 output voltages to choose from (5 - 120VAC R.M.S.)
- Six VA size models available from - .5 to 24 VA
- Vertical mount, split bobbin design.
- 1.2, 4.4, 10, 24 VA models are non-concentric wound.
- 0.5 and 1 VA are both concentric wound.
- Low primary to secondary coupling - no electrostatic shield required.
- Choice of economical single primary 115V - 60 Hz only (161 series) or the universal dual primary 115/230V - 50/60 Hz (160 series).
- High insulation - Hipot of 2,000V RMS.
- Class B insulation - 130 degrees C.
- CSA certified (File # LR3902) and UL recognized (File #E207860).

## Primary Connections - 160 Series Transformers

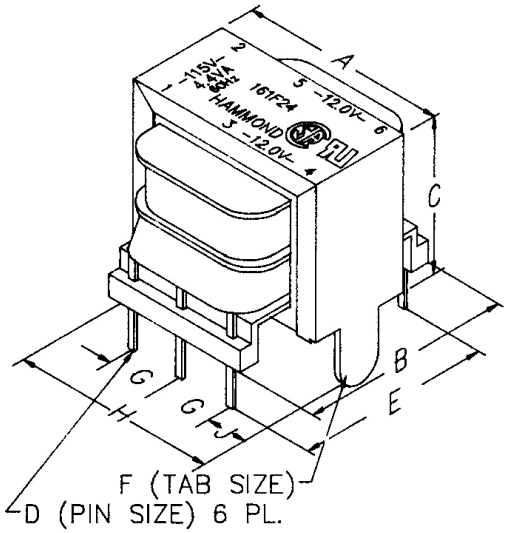


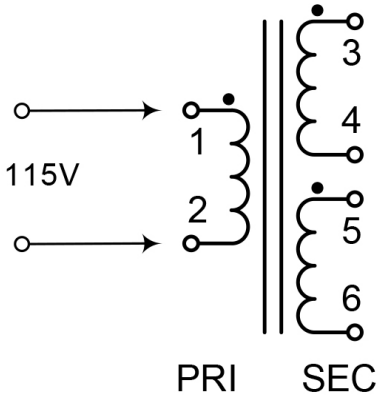




## Secondary Connections - 160 Series Transformers

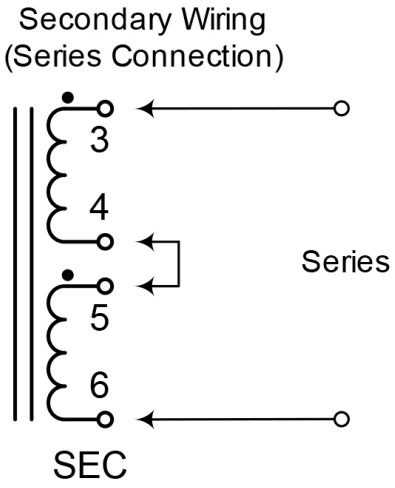


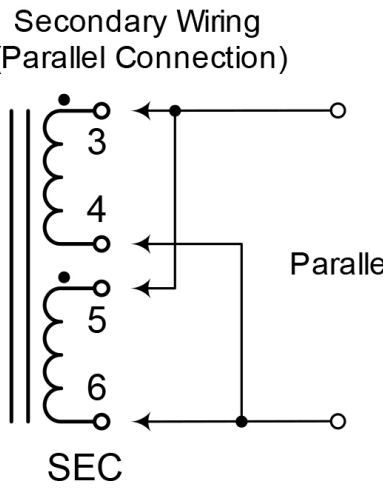

## Primary Connections - 161 Series Transformers




## Secondary Connections - 161 Series Transformers




| Part No Single Primary 115V | Part No Dual Primary 115/230V | Size VA | Secondary (RMS) Series | Parallel |
|---|---|---|---|---|

| Part No Single Primary 115V | Part No Dual Primary 115/230V | Size VA | Secondary (RMS) Series | Parallel |
|---|---|---|---|---|
| **161C10** | - | 0.5 | 10V C.T. @ 50ma | 5V @ 100ma |
| **161D10** | **160D10** | 1 | 10V C.T. @ 90ma | 5V @ 180ma |
| **161FA10** | **160F10** | 1.2 | 10V C.T. @ 120ma | 5V @ 240ma |
| **161GA10** | **160G10** | 4.4 | 10V C.T. @ 440ma | 5V @ 880ma |
| **161J10** | **160J10** | 10 | 10V C.T. @ 1A | 5V @ 2A |
| **161H10** | **160H10** | 24 | 10V C.T. @ 2.4A | 5V @ 4.8A |
| **161C12** | - | 0.5 | 12.6V C.T. @ 40ma | 6.3V @ 80ma |
| **161D12** | **160D12** | 1 | 12.6V C.T. @ 70ma | 6.3V @ 140ma |
| **161FA12** | **160F12** | 1.2 | 12.6V C.T. @ 100ma | 6.3V @ 200ma |
| **161GA12** | **160G12** | 4.4 | 12.6V C.T. @ 350ma | 6.3V @ 700ma |
| **161K12** | **160K12** | 10 | 12.6V C.T. @ 800ma | 6.3V @ 1.6A |
| **161H12** | **160H12** | 24 | 12.6V C.T. @ 2A | 6.3V @ 4A |
| **161C16** | - | 0.5 | 16V C.T. @ 31.3ma | 8V @ 62.5ma |
| **161D16** | **160D16** | 1 | 16V C.T. @ 55ma | 8V @ 110ma |
| **161EA16** | **160E16** | 1.2 | 16V C.T. @ 75ma | 8V @ 150ma |
| **161FA16** | **160F16** | 4.4 | 16V C.T. @ 260ma | 8V @ 520ma |
| **161G16** | **160G16** | 10 | 16V C.T. @ 640ma | 8V @ 1.28A |
| **161H16** | **160H16** | 24 | 16V C.T. @ 1.5A | 8V @ 3A |
| **161D20** | **160D20** | 1 | 20V C.T. @ 45ma | 10V @ 90ma |
| **161EA20** | **160E20** | 1.2 | 20V C.T. @ 60ma | 10V @ 120ma |
| **161FA20** | **160F20** | 4.4 | 20V C.T. @ 220ma | 10V @ 440ma |
| **161G20** | **160G20** | 10 | 20V C.T. @ 500ma | 10V @ 1A |
| **161H20** | **160H20** | 24 | 20V C.T. @ 1.2A | 10V @ 2.4A |
| **161D24** | **160D24** | 1 | 24V C.T. @ 35ma | 12V @ 70ma |
| **161E24** | **160E24** | 1.2 | 24V C.T. @ 50ma | 12V @ 100ma |
| **161F24** | **160F24** | 4.4 | 24V C.T. @ 180ma | 12V @ 360ma |
| **161G24** | **160G24** | 10 | 24V C.T. @ 450ma | 12V @ 900ma |
| **161H24** | **160H24** | 24 | 24V C.T. @ 1A | 12V @ 2A |
| **161D28** | **160D28** | 1 | 28V C.T. @ 30ma | 14V @ 60ma |
| **161E28** | **160E28** | 1.2 | 28V C.T. @ 40ma | 14V @ 80ma |
| **161F28** | **160F28** | 4.4 | 28V C.T. @ 160ma | 14V @ 320ma |
| **161G28** | **160G28** | 10 | 28V C.T. @ 360ma | 14V @ 720ma |
| **161H28** | **160H28** | 24 | 28V C.T. @ 800ma | 14V @ 1.6A |
| **161D34** | **160D34** | 1 | 34V C.T. @ 25ma | 17V @ 50ma |
| **161E34** | **160E34** | 1.2 | 34V C.T. @ 35ma | 17V @ 70ma |
| **161F34** | **160F34** | 4.4 | 34V C.T. @ 125ma | 17V @ 250ma |
| **161G34** | **160G34** | 10 | 34V C.T. @ 300ma | 17V @ 600ma |
| **161H34** | **160H34** | 24 | 34V C.T. @ 700ma | 17V @ 1.4A |
| **161D40** | **160D40** | 1 | 40V C.T. @ 20ma | 20V @ 40ma |
| **161E40** | **160E40** | 1.2 | 40V C.T. @ 30ma | 20V @ 60ma |
| **161F40** | **160F40** | 4.4 | 40V C.T. @ 110ma | 20V @ 220ma |
| **161G40** | **160G40** | 10 | 40V C.T. @ 250ma | 20V @ 500ma |
| **161H40** | **160H40** | 24 | 40V C.T. @ 600ma | 20V @ 1.2A |
| **161D56** | **160D56** | 1 | 56V C.T. @ 15ma | 28V @ 30ma |
| **161E56** | **160E56** | 1.2 | 56V C.T. @ 20ma | 28V @ 40ma |
| **161F56** | **160F56** | 4.4 | 56V C.T. @ 80ma | 28V @ 160ma |
| **161G56** | **160G56** | 10 | 56V C.T. @ 180ma | 28V @ 360ma |
| **161H56** | **160H56** | 24 | 56V C.T. @ 420ma | 28V @ 840ma |
| **161D120** | **160D120** | 1 | 120V C.T. @ 8ma | 60V @ 16ma |
| **161E120** | **160E120** | 1.2 | 120V C.T. @ 10ma | 60V @ 20ma |
| **161F120** | **160F120** | 4.4 | 120V C.T. @ 35ma | 60V @ 70ma |
| **161G120** | **160G120** | 10 | 120V C.T. @ 85ma | 60V @ 170ma |
| **161H120** | **160H120** | 24 | 120V C.T. @ 200ma | 60V @ 400ma |

## Mechanical & Schematic Data (160 Series):

| Size | Overall Dimensions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (VA) | A | B | C | D Thickness | D Width | E | F Thickness | F Width | G | H | J |
| 1 | 1.00 | 1.38 | 0.83 | 0.02 | 0.04 | 1.20 | - | - | 0.20 | N/A | N/A |
| 1.2 | 1.38 | 1.19 | 1.22 | 0.02 | 0.04 | 1.00 | - | - | 0.20 | N/A | N/A |
| 4.4 | 1.69 | 1.25 | 1.45 | 0.02 | 0.04 | 1.10 | 0.03 | 0.12 | 0.25 | 1.67 | 0.46 |
| 10 | 1.94 | 1.44 | 1.69 | 0.02 | 0.04 | 1.30 | 0.03 | 0.19 | 0.25 | 1.89 | 0.57 |
| 24 | 1.63 | 2.25 | 1.38 | 0.02 | 0.04 | 2.10 | - | - | 0.25 | N/A | N/A |

## Mechanical & Schematic Data (161 Series):

| Size | Overall Dimensions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (VA) | A | B | C | D Thickness | D Width | E | F Thickness | F Width | G | H | J |
| 0.5 | 1.00 | 0.94 | 0.84 | 0.025 | 0.03 | 0.78 | - | - | 0.20 | - | - |
| 1 | 1.00 | 1.38 | 0.83 | 0.02 | 0.04 | 1.20 | - | - | 0.20 | - | - |
| 1.2 | 1.38 | 1.19 | 1.22 | 0.02 | 0.04 | 1.00 | - | - | 0.31 | - | - |
| 4.4 | 1.69 | 1.25 | 1.45 | 0.02 | 0.04 | 1.10 | 0.03 | 0.12 | 0.40 | 1.67 | 0.44 |
| 10 | 1.94 | 1.44 | 1.69 | 0.02 | 0.04 | 1.30 | 0.03 | 0.19 | 0.40 | 1.89 | 0.55 |
| 24 | 1.63 | 2.25 | 1.38 | 0.02 | 0.04 | 2.10 | - | - | 0.40 | - | - |

*Data subject to change without notice*

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