



Quality Products. Service Excellence.

Tube Output (10 - 280 Watts) 1608-1650 Series

Push-Pull - HI-FI



Features

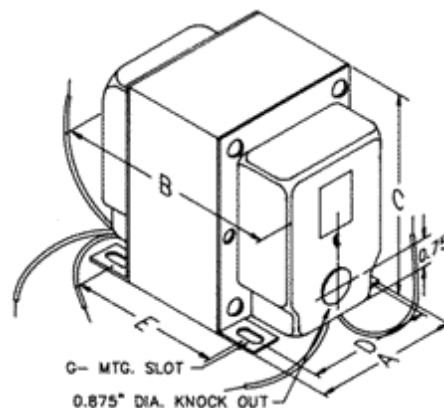
- Please see our NEW & improved versions (**easy wire secondary series**).
- Designed for push-pull tube output circuits.
- Enclosed (shielded), 4 slot, above chassis Type "X" mounting.
- Frequency response 30 Hz. to 30 KHz. at full rated power (+/- 1 db max. - ref. 1 KHz) minimum.
- Insulated flexible leads 8" min.
- Manufactured with plastic coil forms for coil support and insulation.
- Typical applications - Push-Pull: triode, Ultra-Linear pentode, pentode and tetrode connected audio output.
- Due to the unique interleaving of the windings BOTH secondary windings must be engaged to meet specifications (see hook-up diagrams below).
- For the "ultimate" in Push-Pull output see our line of **epoxy potted output transformers**.



1645 Only

- **Secondary Connections** (Due to the unique interleaving of the windings **BOTH** secondary windings must be engaged to meet specifications)
- To hook up 4/8/16 ohm secondary loads - see schematic (do not use the white wire).
- To hook up secondary to 70V loads, jumper Blk/Yel wire to Grn wire. Connect load to Blk and White wires.

Gallery



| Part No. | Audio Watts (RMS) | Primary Impedance (Ohms) | Maximum DC Per Side | Secondary Impedance (Ohms) | Dimensions | | | | | | | Weight (lbs.) | |
|----------|-------------------|--------------------------|---------------------|----------------------------|------------|------|------|------|-------------|--------|---|---------------|------|
| | | | | | A | B | C | D | E +/- 1/16" | G Slot | | | |
| 1608 | 10 | 8,000 ct | 100 ma. | 4-8-16 | 2.50 | 2.75 | 3.06 | 2.00 | 1.69 | 0.20 | x | 0.38 | 2.5 |
| 1609 | 10 | 10,000 ct | 100 ma. | 4-8-16 | 2.50 | 2.75 | 3.06 | 2.00 | 1.69 | 0.20 | x | 0.38 | 2.5 |
| 1615 | 15 | 5,000 ct | 100 ma. | 4-8-16 | 2.50 | 3.25 | 3.06 | 2.00 | 2.19 | 0.20 | x | 0.38 | 3.25 |
| 1620 | 20 | 6,600 ct | 158 ma. | 4-8-16 | 2.50 | 3.50 | 3.06 | 2.00 | 2.44 | 0.20 | x | 0.38 | 3.5 |
| 1650F | 25 | 7,600 ct | 128 ma. | 4-8-16 | 2.50 | 3.50 | 3.06 | 2.00 | 2.44 | 0.20 | x | 0.38 | 4 |
| 1645 | 30 | 5,000 ct | 128 ma. | 4-8-16-70V | 2.50 | 3.75 | 3.06 | 2.00 | 2.69 | 0.20 | x | 0.38 | 4.5 |
| 1650H | 40 | 6,600 ct | 200 ma. | 4-8-16 | 3.13 | 4.00 | 3.81 | 2.50 | 2.69 | 0.20 | x | 0.38 | 6.5 |
| 1650K | 50 | 3,400 ct | 318 ma. | 4-8-16 | 3.13 | 4.00 | 3.81 | 2.50 | 2.69 | 0.20 | x | 0.38 | 7 |
| 1650M | 60 | 1,400CT/800CT | 318 ma. | 4-8-16 | 3.13 | 4.19 | 3.80 | 2.50 | 2.94 | 0.20 | x | 0.38 | 7.5 |
| 1650N | 60 | 4,300 ct | 318 ma. | 4-8-16 | 3.13 | 4.25 | 3.81 | 2.50 | 2.94 | 0.20 | x | 0.38 | 8 |
| 1650P | 60 | 6,600 ct | 200 ma. | 4-8-16 | 3.13 | 4.25 | 3.81 | 2.50 | 2.94 | 0.20 | x | 0.38 | 8 |
| 1650R | 100 | 5,000 ct | 318 ma. | 4-8-16 | 3.75 | 4.25 | 4.56 | 3.00 | 3.06 | 0.20 | x | 0.38 | 12 |
| 1650T | 120 | 1,900 ct | 403 ma. | 4-8-16 | 3.75 | 4.50 | 4.56 | 3.00 | 3.31 | 0.20 | x | 0.38 | 14 |
| 1650W | 280 | 1,900 ct | 806 ma. | 4-8-16 | 4.38 | 7.50 | 5.25 | 3.50 | 5.88 | 0.20 | x | 0.38 | 28 |

Suggested Tube Types

| Part No. | Audio Watts (R.M.S.) | Primary Impedance (Ohms) | Operation | Suggested Tube Types |
|----------|----------------------|--------------------------|-------------------------------|--------------------------------------------|
| 1608 | 10 | 8,000 ct | Push-Pull (2 Tubes) | 6AQ5, 6V6, 6BQ5, EL84, SV83 |
| 1609 | 10 | 10,000 ct | Push-Pull (2 Tubes) | 6AQ5, 6V6, 6BQ5, EL84, SV83 |
| 1615 | 15 | 5,000 ct | Push-Pull (2 Tubes) | 2A3, 6A3, 6AQ5, 6B4G, 6L6, 6V6 |
| 1620 | 20 | 6,600 ct | Push-Pull (2 Tubes) | 6AQ5, 6L6, 6V6 |
| 1650F | 25 | 7,600 ct | Push-Pull (2 Tubes) | 6L6GC, 6V6, 807, 5881, EL34 |
| 1645 | 30 | 5,000 ct | Push-Pull (2 Tubes) | 6L6GC, 6V6, 807, 5881, EL34 |
| 1650H | 40 | 6,600 ct | Push-Pull (2 Tubes) | 6L6GC, 807, 5881, EL34 |
| 1650K | 50 | 3,400 ct | Push-Pull Par. (4 Tubes) | 6L6GC, 807, 5881, EL34, 6146B, 6550B |
| 1650N | 60 | 4,300 ct | Push-Pull Par. (2 or 4 Tubes) | 6L6GC, 807, 5881, EL34, 6146B, 6550B, KT88 |
| 1650P | 60 | 6,600 ct | Push-Pull (2 Tubes) | 6L6GC, 807, 5881, EL34, 6146B, 6550B, KT88 |
| 1650R | 100 | 5,000 ct | Push-Pull Par. (2 or 4 Tubes) | 807, 5881, EL34, 6146B, 6550B, KT88 |
| 1650T | 120 | 1,900 ct | Push-Pull Par. (4 or 6 Tubes) | 6L6GC, 5881, EL34, 6550B, KT88 |
| 1650W | 280 | 1,900 ct | Push-Pull Par. (6 or 8 Tubes) | 6L6GC, 5881, EL34, 6550B, KT88 |

Notes: The above examples of possible combinations are to help you narrow down the choices of transformers for your favorite tube types. How you operate the tubes (push-pull, push-pull parallel, ultra-linear, class, B+, bias, operating points, etc.) will change optimum plate to plate load impedance. Only a few of the most popular tubes are shown. As more tubes become available we will add them to the list. A tube manual or tube manufacturer's technical data sheets should be consulted first, before making a decision on a proper output transformer.

Tags: **classic transformer, push-pull, tube output, triode, pentode, tetrode, output circuit**

Data subject to change without notice

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