



ELECTRONIC TUBE REFERENCE

5C-450A

Power - Pentode (NOT beam) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
PENTODE

Standard Valves 5C/450A directly heated thoriated-tungsten RF transmitting pentode for high-power Class C amplification and suppressor-grid modulation, rated 3000 V anode and 450 W dissipation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	10 V / 12.5 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
TRANSCONDUCTANCE	0.0045 S
MAXIMUM PLATE VOLTAGE	3000 V
MAXIMUM SCREEN VOLTAGE	850 V
MAXIMUM PLATE DISSIPATION	450 W
MAXIMUM SCREEN DISSIPATION	100 W
Standard Valves 5C/450A RF suppressor-modulated pentode, July 1947 ratings. Max anode 3000 V DC, 0.7 A, 450 W dissipation; screen max 850 V, 100 W dissipation; full ratings to 10 MHz, max anode 2250 V at 20 MHz. Transconductance 0.0045 A/V under manufacturer stated conditions; C_{ga} 0.2 pF, input 45 pF, output 27 pF. Earlier 1940 data gm 0.0065 A/V, input 26 pF, output 39 pF and screen max 650 V; preserve source-specific values. Typical Class C suppressor modulated: V_a 2500 V, I_a 300 mA, V_{g2} 530 V, V_{g3} -90 V, V_{g1} -165 V, output ~300 W carrier. Unmodulated Class C: V_a 2500 V, I_a 590 mA, V_{g2} 600 V, I_{g2} 80 mA, V_{g3} +100 V, V_{g1} -165 V, output ~1 kW. Thoriated tungsten directly heated 10 V 12.5 A filament; free air cooling essential.	