

Jingguang 4CX350A/8321, 4CX350F/8322

Radial Beam Power Tetrode

The Jingguang 8321/4CX350A and 8322/4CX350F are compact radial beam tetrodes with a maximum plate dissipation of 350 watts. The intended use for these radial beam tetrodes is for Class-AB, audio or RF amplifier service. The 8321/4CX350A and the 8322/4CX350F differ only the heater voltage and current.

GENERAL CHARACTERISTICS

ELECTRICAL

Cathode: Oxide-Coated, Unipotential	Min	Nom	Max	
Heating Time -----	30		60	secs
Coated-to-Heater Potential -----			±150	volts
Heater: 4CX350A Voltage -----		6.0		volts
4CX350A Current -----	2.9		3.6	amps
4CX350F Voltage -----		26.5		volts
4CX350F Current -----	0.66		0.81	amps
	Min	Nom	Max	
Amplification Factor (Grid-to-Screen)-----		13		
Transconductance (I_b -150mA) -----		22,000		μ mhos
Direct Interelectrode Capacitances, Grounded Cathode:				
Input -----	22.2		26.2	pF
Output -----	5.0		6.0	pF
Feedback -----			0.05	pF
Direct Interelectrode Capacitances, Grounded Grid and Screen:				
Input -----	17.9		21.9	pF
Output -----	5.0		6.0	pF
Feedback -----			0.01	pF

MECHANICAL

Base -----	Special 9-pin
Maximum Operating Temperatures:	
Ceramic-to-Metal Seals -----	250
Anode Core -----	250
Recommended Socket -----	SK-600 Series
Operating Position -----	Any
Maximum Dimensions:	
Height -----	2.464 inch
Seated Height -----	1.910 inch
Diameter -----	1.640 inch
Cooling -----	Forced air
Net Weight -----	- 4 ounces

AUDIO-FREQUENCY AMPLIFIER OR MODULATOR

Class-AB₁:

MAXIMUM RATINGS (Per tube)

DC PLATE VOLTAGE	-----	2500 MAX. VOLTS
DC SCREEN VOLTAGE	-----	400 MAX. VOLTS
DC PLATE CURRENT	--	300 MAX. MA
PLATE DISSIPATION	-----	350 MAX. WATTS
SCREEN DISSIPATION	-----	8 MAX. WATTS
GRID CURRENT	-----	2 MAX. MA

TYPICAL OPERATION (Sinusoidal wave, two tubes unless noted)

DC Plate Voltage	-----	1000	1500	2200	volts
DC Screen Voltage	-----	400	400	400	volts
DC Grid Voltage	-----	-27	-27	-27	volts
Zero-Signal DC Plate Current	-----	200	200	200	mA
Max-signal DC Plate Current	-----	520	530	580	mA
Max-signal DC Screen Current	-----	-8	-10	-6	mA
Effective Load. Plate to Plate	-----	2600	5000	7800	ohms
Peak AF Grid Input Voltage (Per tube)	----	21	21	50	volts
Driving Power	-----	0	0	0	watts
Max. Signal Plate Input Power	-----	560	800	1260	watts
Max. Signal Plate Output Power	-----	190	400	770	watts

Approximate values.

Adjust grid bias to obtain listed zero-signal plate current.

RADIO-FREQUENCY LINEAR AMPLIFIER

Class-AB₁(Single-Sideband Suppressed-Carrier Operation)

MAXIMUM RATINGS

DC PLATE VOLTAGE	-----	2500 MAX.VOLTS
DC SCREEN VOLTAGE	-----	400 MAX.VOLTS
DC PLATE CURRENT	-----	300 MAX.MA
PLATE DISSIPATION	-----	350 MAX.WATTS
SCREEN DISSIPATION	-----	8 MAX.WATTS
GRID CURRENT	-----	2 MAX.WATTS

TYPICAL OPERATION (Peak-envelope conditions except where noted)

DC Plate Voltage	-----	1000	1500	2200	volts
DC Screen Voltage	-----	400	400	400	volts
DC Grid Voltage	-----	-27	-27	-27	volts
Zero-Signal DC Plate Current	-----	100	100	100	mA
Peak PF Grid Voltage	-----	21	21	25	mA
DC Plate Current	-----	260	265	290	mA
DC Screen Current	-----	-4	-5	-3	mA

Plate Input Power -----	260	400	630	watts
Plate Output Power -----	95	200	385	watts
Two-Tone Average DC Plate Current -----	210	215	195	mA
Two-Tone Average DC Plate Current -----	-7	-8	-3	mA
Resonant Load Impedance -----	1300	2500	3900	ohm

Approximate values.

Adjust grid bias to obtain listed zero-signal plate current.

PIN NO. 1. SCREEN GRID

PIN NO. 2. CATHODE

PIN NO. 3. HEATER

PIN NO. 4. CATHODE

PIN NO. 5. I.C. DO NOT USE FOR
EXTERNAL CONNECTION

PIN NO. 6. CATHODE

PIN NO. 7. HEATER

PIN NO. 8. CATHODE

CENTER PIN - CONTROL GRID

DIMENSIONS IN INCHES			
DIMENSIONAL DATA			
DIM.	MIN.	MAX.	REF.
A	2.324	2.464	
B	1.610	1.640	
C	1.810	1.910	
D	.750	.810	
E	.710	.790	
F		1.406	
G	.187		
H	BASE: B8-236 (JEDEC DESIGNATION)		
J	.559	.573	
K	.240		

NOTES

- 1 * CONTACT SURFACE.
2. REF. DIMENSIONS ARE FOR INFORMATION ONLY & ARE NOT REQUIRED FOR INSP. PURPOSES.





