

## Shuguang Treasure Series Tube Specification:

Model Number: 6CA7-Z

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### Filament Heating:

UH	6.3 V
IH	1.5 A

### Maximum Ratings:

Plate Voltage:	800 V
Second grid voltage:	500 V
First grid voltage:	-100 V
Plate power dissipation:	25 w
Second grid power dissipation:	8 w
Cathode current:	150 mA
Heater voltage between cathodes:	+/-100 V
Temperature of glass crust:	250 C

First grid resistance	
Self-biasing:	0.7 Mohm
Fixed-biasing:	0.5 Mohm

### Capacitance

Input capacitance	15.2 pF
Output capacitance	8.4 pF
Muller capacitance	1.1 pF
First grid heater capacitance	1 pF
Cathode capacitance	10 pF

### DC Parameters:

Ua	250 V
Ug2	250 V
Ug3	0 V
-Ug1 (approx)	12.2 V
Ia	100 mA
Gm	11 mA/V
ri	15 Kohm
Ug1-g2	11

### Recommended configuration parameters: (for reference only)

Single ended Class A1 fixed biasing:

Ua(b)	265	265 V
Ua	250	250 V

Ug2	Rg2=2k	Rg2=0
Ug3	0	0 V
-Ug1	14.5	13.5 V
Ia(0)	70	100 mA
Ig2(0)	10	14.9 mA
Gm	9	11 mA/V
ri	18	15 kohm
RL	3	2 kohm
Pout	8	11 w
Dtot	10	10 %

Push-pull Class B1 fixed biasing:

Ua	375	400 V	
Rg2	600	800 V	(with 2 tubes per side)
Ug3	0	0 V	
-Ug1	33	36 V	
Ia(0)	2x30	2x30 mA	
Ia (max sig)	2x107.5	2x110.5 mA	
Ig2(0)	2x4.7	2x4.5 mA	
Ig2 (max sig)	2x23.5	2x23 mA	
RL(a-a)	3.5	3.5 kohm	
U(g1-g1) (r.M.S)	46.7	50 V	
Pout	48	54 w	
Dtot	2.8	1.6 %	

Ultralinear Class B1 self biasing: (43% tapping points)

Ua	430 V
Rg2	2x1 kohm
Ia(0)	2x62.5 mA
Ia (max sig)	2x65 mA
Ig2(0)	2x10 mA
Ig2 (max sig)	2x10.2 mA
Rk	2x470 ohm
U(g1-g1) (r.M.S)	35 V
RL(a-a)	6 kohm
Pout	20 w
Dtot	0.35 %