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6 U 1

Description:

The miniature tube 6U1 is a triode-heptode with an indirectly heated oxide cathode, this tube is designed for use as a frequency changer in common equipment.

The specification for this tube is in accordance with standard DL 3.308.005 JT-I.

Basic data:

Heater voltage	6.3 V.
Heater current	300 ± 30 mA.

Triode section:

Anode voltage	100 V.
Grid voltage	0 V.
Anode current	11 ± 4 mA.
Transconductance	≥ 3 mA/V.
Amplification factor (approx.)	25

Heptode section:

Anode voltage	250 V.
Grid No. 1 voltage	- 2 V.
Grid No. 2, 4 voltage	100 V.
Grid No. 3 voltage	0 V.
Grid No. 3 to triode section bleeder resistor	47 kilo-ohms.
Grid No 3 and grid of triode section A.C. voltage (effective value)	8.5 V.
Anode current	3.3 ± 1.2 mA.
Grid No. 2, 4 current	$6 \begin{smallmatrix}+3\\-2\end{smallmatrix}$ mA.
Converter transconductance	≥ 0.55 mA/V.
Internal resistance	1 megohm.
Triode input capacitance	2.6 ± 0.6 pf.
Triode output capacitance (approx.)	1.8 pf.
Triode grid to anode capacitance	1 ± 0.2 pf.
Heptode grid No. 1 input capacitance	5.1 ± 1 pf.
Heptode grid No. 3 input capacitance	6.3 ± 1.3 pf.
Heptode output capacitance (approx.)	6 pf.
Heptode grid No. 1 to anode capacitance	0.006 pf.
Heptode anode to triode anode capacitance	≤ 0.24 pf.
Service life	≥ 750 hrs.
Standard of service life:	
Triode transconductance	≥ 2.4 mA/V.
Converter transconductance	≥ 0.45 mA/V.
Dimensions:	
Height (including pins)	≤ 73 mm.
Diameter	≤ 22.5 mm.

Limit ratings:

Max. heater voltage	7 V.
Min. heater voltage	5.7 V.
Max. triode anode voltage	250 V.
Max. heptode anode voltage	300 V.
Max. grid No. 2, 4 voltage (1)	300 V.
Max. heater-cathode voltage	± 100 V.
Max. triode cathode current	6.5 mA.
Max. heptode cathode current	12.5 mA.
Max. triode anode dissipation	0.8 W.
Max. heptode anode dissipation	1.7 W.
Max. grid No. 2.4 dissipation	1 W.
Max. triode grid circuit resistance	0.5 megohm.
Max. heptode grid No. 1 circuit resistance	2 megohms.
Max. heptode grid No. 1 circuit resistance (2)	3 megohms
Max. heptode grid No. 3 circuit resistance	3 megohms.

Notes:

(1) When grid No. 2,4 current does not exceed 2 mA.

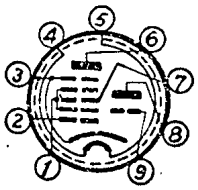
(2) When heptode anode voltage does not exceed 200 V and heptode anode dissipation does not exceed 1,3 W.

Considerations:

1. During operating, the parameters should not be used over the limitations of the max. ratings, and it is also not permitted that two or more than two parameters reach to their max. ratings. Otherwise, the tube will lose its ability.
2. The transient acting force, vertical to the pin axis, should not exceed 500 gms., and the continual acting force should not exceed 200 gms.
3. This tube is not suitable for use in those circuits where heaters are connected in series.
4. The tube may be mounted in any position.

Base connecting diagram:

1. Grid No. 2, 4 of heptode section
2. Grid No. 1 of heptode section
3. Cathode and grid No. 5 of heptode section
4, 5. Heater
6. Anode of heptode section
7. Grid No. 3 of heptode
8. Anode of triode section
9. Grid of triode section



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SIAI

SPECIFICATION

Pentagrid converter, miniature type with indirect-heated cathode

Electric parameters	*Rated values*	*Units*
Heater voltage (∼ or =)	6.3	v.
Plate voltage (=)	250	v.
Grids No. 2 and No. 4 voltage (=)	100	v.
Heater current	300	mA.
Plate current □	3	mA.
Grids No. 2 and No. 4 current □	7.0	mA.
Oscillation transconductance ▽	≥4.5	mA/v.
Conversion transconductance △	≥0.3	mA/v.

Referential values for calculation

Grid No. 3 input capacitance	7.0	μμf.
Grid No. 1 to cathode capacitance	3.0	μμf.
Grid No. 3 to plate capacitance	≤0.4	μμf.
Output capacitance	8.5	μμf.

Max. ratings

Heater voltage (∼ or =)	5.7-6.9	v.
Plate voltage (=)	≤330	v.
Grids No. 2 and No. 4 voltage (=)	≤110	v.
Grid No. 3 voltage (=)	≤-50	v.
Heater-cathode voltage (=)	≤100	v.
Grids No. 2 and No. 4 dissipation	≤1.1	w.
Plate dissipation	≤1.1	w.
Grid No. 1 current	≤0.5	mA.
Cathode current	≤14	mA.

□ At the grid No. 1 circuit resistance 20 kΩ and its current 0.5 mA.

▽ At the plate voltage 100 V.

△ At the grid No. 3 a.c. voltage (effective value) 0.7 V.

(=) D.C. (∼) A.C.

Directly interchangeable tube type	6BE6
Interchangeable tube types after changing the sockets	6A7 (U.S.S.R.) 6A10C 6SA7 7Q7

电子管說明書

按ГОСТ ……(草案)技术条件的旁热式阴極姆指型七級变頻管

电 参 数	測量单位	最小值	額定值	最大值
热絲电压	伏		6.3	
阳極电压	伏		250	
第二柵和第四柵电压	伏		100	
热絲电流	毫安		300	
陽極电流 ○	毫安		8	
第二柵和第四柵电流 ○	毫安		7.0	
振盪跨导 ▽	毫安/伏	4.5		
变頻跨导 △	毫安/伏	0.3		
計算参考值				
第三柵輸入电容	微微法		7.0	
第一柵与阴極間电容	微微法		8.0	
第三柵与陽極間跨路电容	微微法			0.4
輸入电容	微微法		8.5	
允許使用極限值				
灯絲电压	伏	5.7		6.9
陽極电压	伏			330
第二柵与第四柵电压	伏			110
第三柵电压	伏			−50
陽極与热絲間电压	伏			±100
第二柵与第四柵耗散功率	瓦			1.1
陽極耗散功率	瓦			1.1
持一柵电流	毫安			0.5
阴極电流	毫安			14

○当第一柵柵漏电阻为20仟欧和該柵电流为 0.5毫安时。 ▽在阳極电压 100伏时 △第三柵交流电压(有效值)为 0.7伏时

附註: 1 电子管工作时，其参数不应超过允許使用極限值也不应有两个或两个以上的参数达到允許使用極限值否則会丧失工作能力。

2 垂直于管針軸綫方向的作用力: 短期不应超过500克，長期不应超过200克。

3 电子管不要用于热絲串联的电路中。

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STAT

SPECIFICATION

Pentagrid converter, battery tube miniature type

Electric parameters	*Rated values*	*Units*
Filament voltage (=)	1.2	v.
Filament current	30	mA.
Plate voltage	60	v.
A.c. grid No. 1 voltage (effective)	8	v.
Grids No. 2 and No. 4 voltage (=)	45	v.
Grid No. 3 voltage (=)	0	v.
Grid No. 1 circuit resistance	51	$K\Omega$
Plate current	0.7	mA.
Grid No. 1 current	130	μA.
Grids No. 2 and No. 4 current	1.1	mA.
Oscillation transconductance	0.82	mA/v.
Conversion transconductance	0.24	mA/v.

Referential values for calculation

Input capacitance of the signal part	5.1	$\mu\mu$f.
Output capacitance of the signal part	6.3	$\mu\mu$f.
Grid-plate capacitance of the signal part	$\leq$0.6	$\mu\mu$f.
Input capacitance of the oscillation part	0.95	$\mu\mu$f.
Output capacitance of the oscillation part	7.3	$\mu\mu$f.
Grid No. 1 to grid No. 3 capacitance	0.14	$\mu\mu$f.

Max. ratings

Filament voltage (=)	$\leq$0.9—1.4	v.
Plate voltage (=)	$\leq$90	v.
Grids No. 2 and No. 4 voltage (=)	$\leq$75	v.
Plate and grid No. 2 supply voltage (=)	$\leq$250	v.
Cathode current (average)	$\leq$3	mA.
Cathode current (peak)	$\leq$9	mA.
Plate dissipation (=) D.C.	$\leq$0.3	w.

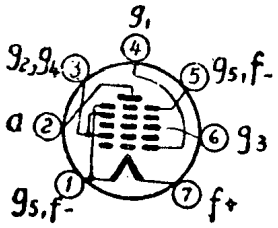
Notes:

1. During working within the limitations of the max. ratings the tube still keeps its working ability, but its life is shoater than under normal operating Voltages.

2. Don't supply high voltages to the plate and grid No. 2 when the filament voltage is lower than rated values, otherwise its life will be shortened rapidly and lose its working ability.

Seal of the Technical Controlling Department Date

Tube base diagram



电子管說明書

按 СД3.300.905ТУ2 技术条件省电直热式陰極七極变頻管

电 参 数	測量单位	最小值	額定值	最大值
灯絲电压	伏		1.2	
灯絲电流	毫安		30	
陽极电压	伏		60	
第一柵交流电压（有效值）	伏		8	
第二柵第四柵电压	伏		45	
第三柵电压	伏		0	
第一柵柵漏电阻	仟欧		51	
阳极电流	毫安		0.7	
第一柵电流	微安		130	
第二柵及第四柵电流	毫安		1.1	
变頻跨导	毫安/伏		0.24	
特性曲線开始部份变頻跨導（第三柵电压＝－伏）	微安/伏	5		
振盪跨導	毫安/伏		0.82	
訊号部份的輸入电容	微微法		5.1	
訊号部份的輸出电容	微微法		6.3	
訊号部份的跨路电容	微微法			0.6
振盪部份的輸入电容	微微法		0.95	
振盪部份的輸出电容	微微法		7.3	
第一柵及第第三柵电容	微微法		0.14	
寿命	小时	1000		
寿命标准：变頻跨導	毫安/伏	0.1		
允許使用极限值				
灯絲电压	伏	0.9		1.4
阳极电压	伏			90
第二柵及第四柵电压	伏			75
阳极和第二柵电源电压	伏			250
阴极电流（平均值）	毫安			3
阴极电流（峰值）	毫安			9
阳极消耗功率	瓦			0.3

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北京
1521

SPECIFICATION

Diode-pentode, battery tube miniature type

Electric parameters	*Rated values*	*Units*
Filament voltage (=)	1.2	v.
Filament current	30	mA.
Plate voltage (=)	60	v.
Grid No. 1 voltage (=)	0	v
Grid No. 2 voltage (=)	45	v.
Plate current of the pentode	0.9	mA.
Grid No. 2 current	0.18	mA.
Transconductance	0.55	mA/v.
Plate resistance	1	$M\Omega$

Referential values for calculation

Input capacitance of the pentode	1.85	$\mu\mu$f.
Output capacitance of the pentode	2.1	$\mu\mu$f.
Grid plate capacitance	0.27	$\mu\mu$f.
Plate cathode capacitance of the diode	0.3	$\mu\mu$f.

Max. ratings

Filament voltage (=)	0.9—1.4	v.
Plate voltage (=)	$\leq$90	v.
Grid No. 2 voltage (=)	$\leq$75	v.
Plate and grid No. 2 supply voltage (=)	$\leq$250	v.
Cathode current	$\leq$2	mA.
Plate dissipation (=) D.C.	$\leq$0.15	w.

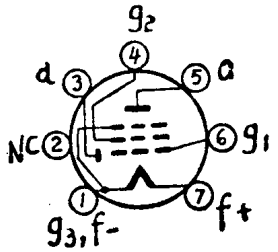
Notes:

1. During working within the limitations of the max. ratings the tube still keeps its working ability, but its life is shoater than under normal operating volgates.

2. Don't supply high voltages to the plate and grid No. 2 when the filament voltage is lower than rated values, otherwise its life will be shortened rapidly and lose its working ability.

Seal of the Technical Controlling Department Date

Tube base diagram



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6 K 4

SPECIFICATION

H. F. remote cut-off pentode, miniature type with indirectly heated oxide cathode.

Heater

Heater volage	6.3	V
Heater current	300	mA

Characteristics

Anode voltage	250	V
Grid No. 2 voltage	100	V
Cathode bias resistor	68	Ω
Anode current	10	mA
Grid No. 2 current	⩽ 5.5	mA
Transconductance	4.4	mA/V
Grid No. 1 voltage (aprox.) for transconductance of 40 μA/V	—20	V

Limiting Values

Maximum heater voltage	6.9	V
Minimum heater voltage	5.7	V
Maximum anode voltage	300	V
Maximum grid No. 2 voltage	125	V
Maximum anode dissipation	3.0	W
Maximum grid No. 2 dissipation	0.6	W
Maximum cathode current	20	mA
Maximum grid No. 1 circuit resistor	500	K Ω
Maximum heater—cathode voltage	±90	V

Capacitances

Input	6.0	pF
Output	6.3	pF
Grid No. 1 to anode	⩽ 0.0045	pF

Equivalent type: 6BA6 EF 93
(rewire base)

Direct equivalent type: 6К4П. (C.C.C.P.)

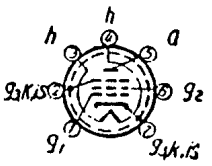
Notes

1. During operating, the parameters should not be used over the limitations of the max. ratings. And also it is not permitted that two or more than two parameters equal its max. ratings, otherwise, the tube will lose its working ability.

2. The transient acting force, vertical to the pin axis, should not exceed 500 gm. and the continual acting force should not exceed 200 gm.

3. Using the tubes in the circuits, in which the heater are connected in series, is not recommended.

Tube base diagram



Manufactured by:
PEKING ELECTRON TUBE FACTORY
Peking, China.

1961, 6 — 11 (001 – 25000)

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SPECIFICATION

R. F. sharp cut-off pentode, miniature type with indirect-heated cathode

Electric parameters	*Rated values*	*Units*
Heater voltage (～ or =)	6.3	v.
Heater current	170	mA.
Plate voltage (=)	120	v.
Grid No. 1 voltage (=)	self-bias	
Grid No. 2 voltage (=)	120	v.
Cathode-bias resistance	200	Ω
Plate current	7.35	mA
Grid No. 2 current	3.2	mA
Transconductance	5.2	mA/v.

Referential values for calculation

Input capacitance	4.3	$\mu\mu f.$
Output capacitance	2.35	$\mu\mu f.$
Grid to plate capacitance	≤ 0.02	$\mu\mu f.$
Plate resistance	0.3	M

Max. ratings

Heater voltage (～ or =)	5.7—6.9	v.
Plate voltage (=)	≤ 200	v.
Grid No. 2 voltage (=)	≤ 150	v.
Heater-cathode voltage (=)	± 120	v.
Cathode current	≤ 20	mA.
Plate dissipation	≤ 1.8	w.
Grid No. 2 dissipation	≤ 0.55	w.
Grid No. 1 circuit resistance (=) D.C. (～) A.C.	≤ 1.0	MΩ

Directly interchangeable tube type 6AK5

电子管說明書

按ГОСТ……（草案）技术条件的旁热式陰極具有銳截止特性的姆指型高頻五極管

电 参 数	測量单位	小最值	額定值	最大值
热絲电压	伏		6.3	
热絲电流	毫安		170	
陽極电压	伏		120	
第一柵电压	伏		自偏压	
第二柵电压	伏		120	
陰極电路电阻	欧姆		200	
陽極电流	毫安		7.35	
第二柵电流	毫安			3.2
跨导	毫安/伏		5.2	
計算参考值				
輸入电容	微微法		4.3	
輸出电容	微微法		2.35	
跨路电容	微微法			0.02
入阻	兆欧		0.3	
允許使用極限值				
热絲电压	伏	5.7		6.9
陽極电压	伏			200
第二柵电压	伏			150
陰極热絲間电压	伏	−120		+120
陰極电流	毫安			20
陽極耗散功率	瓦			1.8
第二柵耗散功率	瓦			0.55
第一柵电路电阻	兆欧			1.0

附註：1 电子管工作时，其参数不应超过允許使用極限值；也不应有兩个或兩个以上参数达到允許使用極限值，否則会丧失工作能力。

2 垂直于管針軸綫方向的作用力，短期不应超过500克長期不应超过 200克。

3 电子管不要用于灯絲串联的电路中。

技术监督科印鑑　　日期

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Notes:

1. During operating, the parameters should not be used over the limitations of the max. ratings. And also it is not permitted that two or more than two parameters equal its max. ratings, otherwise, the tube will lose its working ability.

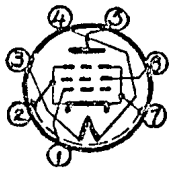
2. The transient acting force, vertical to the pin axis, should not exceed 500 gm. and the continual acting force should not exceed 200 gm.

3. Using the tubes in the circuits, in which the heater are connected in series, is not recommended.

Seal of the Technical Controlling Department Date

Tube base diagram

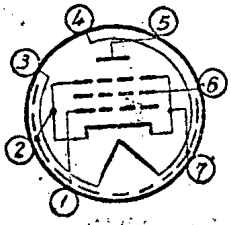
1. Grid No. 1
2. Cathode, Grid No. 3, Shield
3. Heater
4. Heater



5. Plate
6. Grid No. 2
7. Cathode, Grid No. 3, Shield

管針接綫圖(当管針向上时)

1 第一柵
2 陰極,第三柵隔离罩
3 热絲
4 热絲



5 陽極
6 第二柵
7 陰極,第三柵隔离罩

Note:

When the tube is damaged, please fill in the following blanks and post to "Peking Electron Tube Factory, Peking, China."

Date of being put into action.....

Date of being damaged.....

Working hours.....

Fundamental data in use.....

Causes of damage.....

.....

.....

User.....

Address.....

.....

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STAT

北京 2П2П

SPECIFICATION

Beam power, Amplifier, battery tube miniature type

Electric parameters	*Rated values*	*Units*
Filament voltage (=)	1.2/2.4	v.
Filament current	60/30	mA.
Plate voltage (=)	60	v.
Grid No. 1 voltage (=)	—3.5	v.
Grid No. 2 voltage (=)	60	v.
A.c. grid No. 1 voltage (effective)	2.5	v.
Plate current	3.5	mA.
Grid No. 2 current	0.8	mA.
Transconductance	1.1	mA/v.
Power output (load resistance 20 kΩ)	75	mw.

Referential values for calculation

Input capacitance	3.7	μμf.
Output capacitance	3.2	μμf.
Grid-plate capacitance	0.4	μμf.

Max. ratings

Filament voltage (=)	0.9/1.8-1.4/2.8	v
Plate voltage (=)	≤ 90	v.
Grid No. 2 voltage (=)	≤ 90	v.
Plate and grid No. 2 supply voltage (=)	≤250	v.
Cathode current (average)	≤ 7	mA.
Cathode current (peak)	≤ 10	mA.
Plate dissipation (=) D.C.	≤ 0.4	w.

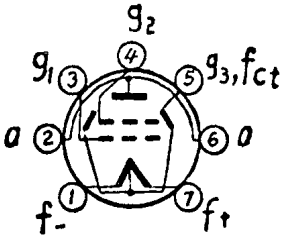
Notes:

1. During working within the limitations of the max. ratings the tube still keeps its working ability, but its life is shoater than under normal operating voltages.

2. Don't supply high voltages to the plate and grid No. 2 when the filament voltage is lower than rated values, otherwise its life will be shortened rapidly and lose its working ability.

Seal of the Technical Controlling Department Date

Tube base diagram



北京 2П2П

电子管說明書

按 СД3.300.903ТУ2 技术条件省电直热式陰極輸出四極管

电 参 数	測量单位	最小值	額定值	最大值
灯絲电压	伏		1.2/2.4	
灯絲电流	毫安		60/30	
阳極电压	伏		60	
第一柵电压	伏		−3.5	
第二柵电压	伏		60	
第一柵交流电压(有效值)	伏		2.5	
阳極电流	毫安		3.5	
第二柵电流	毫安		0.8	
跨导	毫安/伏		1.1	
阳極負荷电阻为20仟欧时之輸出功率	毫瓦		75	
寿命	小时	1000		
寿命标准——輸出功率	毫瓦	35		
允許使用極限值				
灯絲电压	伏	0.9/1.8		1.4/2.8
阳極电压	伏			90
第二柵电压	伏			90
阳極和第二柵的电源电压	伏			250
阴極电流（平均值）	毫安			7
阴極电流（峯值）	毫安			10
阳極耗散功率	瓦			0.4

附註：1. 电子管在允許使用極限值下工作，仍能保持工作能力，但它的寿命比在正常电压下短。
2. 在灯絲电压低于額定值时，不要加高阳極和第二柵电压，否則会使电子管急剧地縮短寿命和丧失工作能力。

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1 K 2

SPECIFICATION

H. F. remote cut-off pentode, miniature type with directly heated oxide filament.

Filament

Filament voltage	1.2	V
Filament current	30	mA

Characteristics

Anode voltage	60	V
Grid No. 2 voltage	45	V
Grid No. 1 voltage	0	V
Anode current	1.35	mA
Grid No. 2 current	0.35	mA
Transconductance	0.7	mA/V
Internal resistance	1.5	M Ω

Limiting Values

Maximum filament voltage	1.4	V
Minimum filament voltage	0.9	V
Maximum anode voltage	90	V
Maximum grid No. 2 voltage	75	V
Maximum cathode current	3.5	mA
Maximum anode dissipation	0.3	W

Capacitances

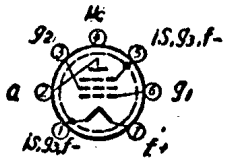
Input	3.0	pF
Output	4.9	pF
Grid No. 1 to anode	< 0.1	pF

Near equivalent type:	IT4T	DF96
Direct equivalent type:	1K2II.	(C.C.C.P.)

Notes:

1. During working within the limitations of the max. ratings the tube still keeps its working ability, but its life is shorter than under normal operating volgates.
2. Don't supply high voltages to the anode and grid No. 2 when the filament voltage is lower than rated values, otherwise its life will be shortened rapidly and lose its working ability.
3. The transient acting force, vertical to the pin axis, should not exceed 500 gm. and the continual acting force should not exceed 200 gm.

Tube base diagram



Manufactured by:

PEKING ELECTRON TUBE FACTORY

Peking, China.

1961, 6 — 21 (001 — 30000)

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6 N 2

SPECIFICATION

High-mu double triode, miniature type with indirectly heated separated oxide cathodes.

Heater

Heater voltage	6.3	V
Heater current	340	mA

Characteristics (each section)

Anode voltage	250	V
Grid voltage	-1.5	V
Anode current	2.3	mA
Transconductance	2.1	mA/V
Amplification factor	97.5	
Internal resistance	46.5	KΩ

Limiting Values

Maximum heater voltage	6.9	V
Minimum heater voltage	5.7	V
Maximum anode voltage	300	V
Maximum anode dissipation	1	W
Maximum cathode current	10	mA
Maximum grid circuit resistor	0.5	MΩ
Maximum heater-cathode voltage	±100	V

Capacitances

Input (each section)	2.15	pF
Output (1st section)	2.5	pF
Output (2nd section)	2.8	pF
Grid to anode (each section)	< 0.7	pF
Anode No. 1 to anode No. 2	≤ 0.3	pF

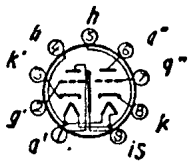
Near equivalent type: 12AX7 ECC 83

Direct equivalent type: 6Н2П (C.C.C.P.)

Notes

1. During operating, the parameters should not be used over the limitations of the max. ratings. And also it is not permitted that two or more than two parameters equal its max. ratings, otherwise, the tube will lose its working ability.
2. The transient acting force, vertical to the pin axis, should not exceed 500 gm. and the continual acting force should not exceed 200 gm.
3. Using the tubes in the circuits, in which the heater are connected in series, is not recommended.

Tube base diagram



Manufactured by:
PEKING ELECTRON TUBE FACTORY
Peking, China.

1961, 6 — 13" (001 — 10000)

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6 N 1

SPECIFICATION

Medium-mu double triode, miniature type with indirectly heated separated oxide cathodes.

Heater

Heater voltage	6.3	V
Heater current	600	mA

Characteristics

(each section)

Anode voltage	250	V
Cathode bias resistor	600	Ω
Anode current	7.5	mA
Transconductance	4.35	mA/V
Amplification factor	35	

Limiting Values

Maximum heater voltage	6.9	V
Minimum heater voltage	5.7	V
Maximum anode voltage	300	V
Maximum anode dissipation	2.2	W
Maximum cathode current	25	mA
Maximum grid circuit resistor	1.0	MΩ
Maximum heater—cathode voltage	+100	V
	-250	V

Capacitances

Input (each section)	3.1	pF
Output (each section)	1.85	pF
Grid to anode (each section)	≤2.7	pF
Anode No. 1 to anode No. 2	≤0.2	pF

Direct equivalent type: 6H1П (C.C.C.P.)

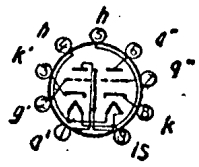
Notes

1. During operating, the parameters should not be used over the limitations of the max. ratings. And also it is not permitted that two or more than two parameters equal its max. ratings, otherwise, the tube will lose its working ability.

2. The transient acting force, vertical to the pin axis, should not exceed 500 gm. and the continual acting force should not exceed 200 gm.

3. Using the tubes in the circuits, in which the heater are connected in series, is not recommended.

Tube base diagram



Manufactured by:
PEKING ELECTRON TUBE FACTORY
Peking, China.

1961, 6 — 12 (001 — 1500)

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SPECIFICATION

Twin-diode, miniature type with indirect-heated cathode

Electric parameters	*Rated values*	*Units*
Heater voltage (～ or =)	6.3	v.
Heater current	300	mA.
D.C. output current ★	≥17	mA.

★ At the plate supply voltage 2×150 V., cathode resistance 10 kΩ and cathode capacitance 8 μf.

Referential values for calculation

Starting plate current	≤20	μA.
Difference of starting plate current	≤8	μA.
Capacitance between plates	≤0.03	μμf
Capacitance between plate and (cathode + heater + internal shield + external shield)	3.4	μμf.
Capacitance between cathode and (plate + heater + internal shield + external shield)	3.8	μμf.
Heater-cathode capacitance	≤4	μμf.

Max. ratinges

Heater voltage (～ or =)	5.7-6.9	v.
Peak inverse plate voltage	≤450	v.
Plate current (pulse)	≤90	mA.
D.C. output current	≤20	mA.
Heater-cathode voltage (=) (=) D.C. (～) A.C.	≤±350	v.
Directly interchangeable tube type	6AL5	
Interchangeable tube types after changing the sockets	6X6C, 6H6.	

Notes:

1. During operating, the parameters should not be used over the limitations of the max. ratings. And also it is not permitted that two or more than two parameters equal its max. ratings, otherwise, the tube will lose its working ability.

电子管說明書

按DL3.303.000TУ=技术条件分开的旁热式氧化物阴極姆指型双二極管

电 参 数

热絲电压（～或=）	6.3	伏
热絲电流	300	毫安
整流电流*	≥ 17	毫安

* 当变压器副圈电压为 2×150 伏，負荷电阻为10千欧，滤波电容为8微法时

計 算 参 考 值

阳極起始电流	≤ 20	微安
阳極起始电流差	≤ 8	微安
阳極間电容	≤0.03	微微法
阳極与(阴極＋热絲＋内隔离罩＋外隔离罩)間电容	3.4	微微法
阴極与(阳極＋热絲＋内隔离罩＋外隔离罩)間电容	3.8	微微法
阴極与热絲間电容	≤ 4	微微法

允 許 使 用 極 限 值

热絲电压（～或=）	5.7—6.9	伏
阳極反电压峰值	≤450	伏
阳極电流（峯值）	≤ 90	毫安
整流电流	≤ 20	毫安
阴極热絲間电压（=）	≤±350	伏

（=）直流（～）交流

附注：1. 电子管工作时其参数不应超过允許使用極限值，也不应有二个或二个以上的参数达到允許使用極限值，否則会丧失工作能力。
2. 垂直于管針軸綫方向的作用力短期不应超过500克、长期不应超过200克
3. 电子管不要用于热絲串联的电路中

在各种負載时的最小电阻值

变压器副圈电压	伏(有效值)	100	125	150	170
变压器輸出电阻与附加电阻之和(最小值)	欧姆	130	250	350	430
負載电流	毫安	20	20	20	20
負載电压	伏	115	140	170	195

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2. The transient acting force, vertical to the pin axis, should not exceed 500 gm. and the continual acting force should not exceed 200 gm.

3. Using the tubes in the circuits, in which the heater are connected in series, is not recommended.

Seal of the Technical Controlling Department Date

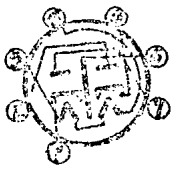
Min. resistances under various loads

Effective plate supply voltage	100	125	150	170	v.
The min. values of the summation of the transformer output impedance and additional resistance	130	250	350	430	Ω
Load current	20	20	20	20	mA.
Load voltage	115	140	170	195	v.

Seal of the Technical Controlling Department Date

Tube base diagram

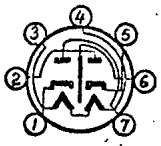
1. Cathode T_1
2. Plate T^2
3. Heater
4. Heater



5. Cathode T^2
6. Shield
7. Plate in the first

管針接綫图(当管針向上时)

1.第一个二極管阴極
2.第二个二極管阳極
3.热絲
4.热絲



5.第二个二極管阴極
6.隔离片
7.第一个二極管阳極

Note:

When the tube is damaged, please fill in the following blanks and post to "Peking Electron Tube Factory, Peking, China."

Date of being put into action.....

Date of being damaged.....

Working hours.....

Fundamental data in use.....

Causes of damage.....

.....

.....

User.....

Address.....

.....

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北京 6Ц4П

SPECIFICATION

Full-wave rectifier, miniature type with indirect-heated cathode

Electric parameters	*Rated values*	*Units*
Heater voltage (~or=)	600	mA.
Heater current	6.3	v.
D.C. output current*	≥ 72	mA.

* At the plate supply voltage 2 × 350V, load resistance 5.2 KΩ. and filter capacitance 8 μf.

Max. ratings

Heater voltage (~or=)	≤ 5.7-6.9	v
Peak inverse plate voltage	≤1000	v.
Heater . . cathode voltage (=)	≤±400	v.
D.C. output current	≤ 75	mA.
Plate current (pulse) (=) D.C. (~) A.C.	300	mA.
Directly interchangeable tube type	6X4 △	
Interchangeable tube types after changing the sockets	6Ц5C.	6X5GT
Different connection of tube electrodes		

Notes:

1. During operating, the parameters should not be used over the limitations of tht max. ratings. And also it is not permitted that two or more than two parameters equal its max. ratings, otherwise, the tube will lose its working ability.
2. The transient acting force, vertical to the pin axis, should not exceed 500 gm. and tht continual acting force shold not exceed 200 gm.
3. Using the tubes in the circuits, in which the heater are connected in series, is not recommended.

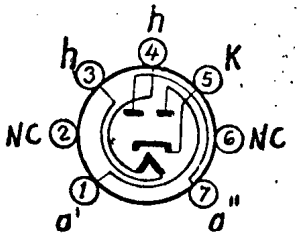
Seal of the Technical Controlling Department Date

Min. resistances under various loads

Effective plate supply voltage	200	300	350	400	v.
The min. value of the summation of the transformer output impedance and additional resistance	100	200	300	400	Ω
Load current	75	75	75	75	mA.
Load voltage	205	310	360	415	v.

Seal of the Technical Controlling Department Date

Tube base diagram



北京 6Ц4П

电子管說明書

按DL3.848002TУ 3=技术条件具有共用旁热式氧化物阴極的姆指型全波整流管。

电 参 数

热絲电压（～或＝）	6.3	伏
热絲电流	600	毫安
整流电流△	≥ 72	毫安

△当变压器副圈电压为2×350伏滤波电容为8微法负荷电阻 5.2 仟欧

允許使用極限值

热絲电压（～或＝）	5.7—6.9	伏
阳極反电压峰值	≤ 1000	伏
阴極热絲間电压（＝）	≤±400	伏
整流电流	≤ 75	毫安
阳極电流峯值	≤ 300	毫安

（＝）直流（～）交流

附注：1. 电子工作时，其参数不超过允許使用極限值；也不应有两个或两个以上的参数达到允許使用極限值。否則会丧失工作能力。
2. 垂直于管針軸綫方向的作用力：短期不应超过 500 克，长期不应超过200克。
3. 电子管不要用于热絲串联的电路中

在各种負載时的最小电阻值

变压器副圈电压（有效值）	200	300	350	400	伏
变压器輸出阻抗与附加电阻之和（最小值）	100	200	300	400	欧姆
負載电流	75	75	75	75	毫安
負載电压	205	310	360	415	伏

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