

Three-Unit Triode

With Medium-Mu Unit and Two High-Mu Units

DUODECAR TYPE

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC)	6.3 ^a	6.3 ± 0.6	volts
Current	0.600 ± 0.040	0.600 ^b	amp
Warm-up time (Average)	11	—	sec

Peak heater-cathode voltage

(Each unit):

Heater negative with respect to cathode. 200 max. volts

Heater positive with respect to cathode. 200^c max. volts

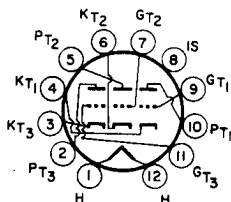
Direct Interelectrode Capacitances (Approx.):^d

	Unit No. 1	Unit No. 2	Unit No. 3	
Grid to plate	1.3	1.3	1.3	pf
Input: G to (K, IS, H)	1.9	1.8	1.8	pf
Output: P to (K, IS, H)	1.8	0.7	1.8	pf

Mechanical:

Operating Position.	Any
Type of Cathodes.	Coated Unipotential
Maximum Overall Length.	1.875"
Seated Length.	1.250" to 1.500"
Diameter.	1.062" to 1.188"
Dimensional Outline (JEDEC 9-56).	See <i>General Section</i>
Bulb.	T9
Base.	Small-Button Duodecar 12-Pin (JEDEC No. E12-70)
Basing Designation for BOTTOM VIEW.	12BY

- Pin 1—Heater
- Pin 2—Plate of Unit No. 3
- Pin 3—Cathode of Unit No. 3
- Pin 4—Cathode of Unit No. 1
- Pin 5—Plate of Unit No. 2
- Pin 6—Cathode of Unit No. 2
- Pin 7—Grid of Unit No. 2
- Pin 8—Internal Shield
- Pin 9—Grid of Unit No. 1
- Pin 10—Plate of Unit No. 1
- Pin 11—Grid of Unit No. 3
- Pin 12—Heater



AMPLIFIER — Class A₁

Characteristics:

Plate Voltage	250	250	volts
Grid Voltage.	-8.5	-2	volts



6K11/6Q11

	Unit No. 1	Unit No. 2 or 3	
Amplification Factor.	17	100	
Plate Resistance (Approx.). . .	7700	62500	ohms
Transconductance.	2200	1600	μ mhos
Plate Current	10.5	1.2	ma
Grid Voltage (Approx.) for plate μ a = 10	-24	-	volts

Maximum Ratings, Design-Maximum Values:

Plate Voltage	330	330	volts
Grid Voltage:			
Negative-bias value	50	50	volts
Positive-bias value	0	0	volts
Cathode Current	20		ma
Plate Dissipation	2.75	0.3	watts

a At heater amperes = 0.600.

b At heater volts = 6.3

c The dc component must not exceed 100 volts.

d Without external shield.



Three-Unit Triode

With Medium-Mu Unit and Two High-Mu Units

DUODECAR TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC). 6.3^a 6.3 ± 0.6 volts

Current 0.600 ± 0.040 0.600^b amp

Warm-up time (Average). 11 - sec

Peak heater-cathode

voltage (Each unit):

Heater negative with
respect to cathode. 200 max. volts

Heater positive with
respect to cathode. 200^c max. volts

Direct Interelectrode Capacitances (Approx.):^d

	Unit No. 1	Unit No. 2	Unit No. 3	
Grid to plate	1.3	1.3	1.3	μf
Grid to cathode, internal shield, and heater.	1.9	1.8	1.8	μf
Plate to cathode, internal shield, and heater.	1.8	0.7	1.8	μf

Characteristics, Class A₁ Amplifier:

	Unit No. 1	Units No. 2 or 3	
Plate Voltage	250	250	volts
Grid Voltage.	-8.5	-2	volts
Amplification Factor.	17	100	
Plate Resistance (Approx.).	7700	62500	ohms
Transconductance.	2200	1600	μmhos
Plate Current	10.5	1.2	ma
Grid Voltage (Approx.) for plate $\mu_a = 10$	-24	-	volts

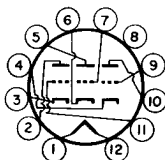
Mechanical:

Operating Position.	Any
Type of Cathodes.	Coated Unipotential
Maximum Overall Length.	1.875"
Seated Length	1.250" to 1.500"
Diameter.	1.062" to 1.188"
Bulb.	T9
Base.	Small-Button Duodecar 12-Pin (JEDEC No. E12-70)



Basing Designation for BOTTOM VIEW. 12BY

Pin 1-Heater
 Pin 2-Plate of
 Unit No.3
 Pin 3-Cathode of
 Unit No.3
 Pin 4-Cathode of
 Unit No.1
 Pin 5-Plate of
 Unit No.2
 Pin 6-Cathode of
 Unit No.2



Pin 7-Grid of
 Unit No.2
 Pin 8-Internal
 Shield
 Pin 9-Grid of
 Unit No.1
 Pin 10-Plate of
 Unit No.1
 Pin 11-Grid of
 Unit No.3
 Pin 12-Heater

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

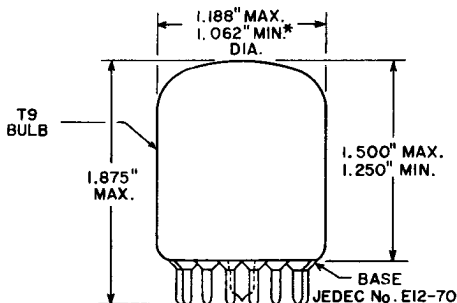
	Unit No. 1	Units No. 2 or 3	
PLATE VOLTAGE	330 max.	330 max.	volts
GRID VOLTAGE:			
Negative-bias value	50 max.	50 max.	volts
Positive-bias value	0 max.	0 max.	volts
CATHODE CURRENT	20 max.	—	ma
PLATE DISSIPATION	2.75 max.	0.3 max.	watts

^a At heater amperes = 0.600.

^b At heater volts = 6.3.

^c Without external shield.

^d The dc component must not exceed 100 volts.



92CS-11485

* APPLIES IN ZONE STARTING 0.375" FROM BASE SEAT.