6Q11

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	1.8	2.0	2.0	pf
Grid to cathode, internal shield, and heater	1.9	1.8	1.8	pf
Plate to cathode, internal shield, and heater	1.7	0.6	1.7	pf

Characteristics:

Class A_1 Amplifier

	Unit No. 1	*Units No. 2 or 3*		
Plate Voltage	150	100	250	volts
Grid Voltage	0	−1	−2	volts
Amplification Factor	18	100	100	
Plate Resistance (Approx.)	7000	80000	62500	ohms
Transconductance	2500	1250	1600	μmhos
Plate Current	22	0.5	1.2	ma
Grid Voltage (Approx.) for plate μa = 10	−13	–	−4.5	volts

Pulse Amplifier[e]

	Unit No. 1	
Plate Voltage	30	volts
Grid Voltage	30	volts
Peak Cathode Current	200	ma
Ratio, Plate Current to Grid Current	1	

Mechanical:

Operating Position	Any
Type of Cathodes	Coated Unipotential
Maximum Overall Length	1.875"

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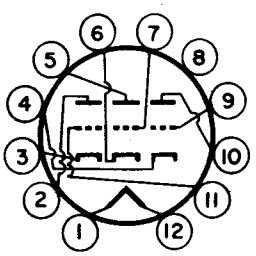
Seated Length	1.250" to 1.500"
Diameter	1.062" to 1.188"
Bulb	T9
Base	Small-Button Duodecar 12-Pin (JEDEC No.E12-70)
Basing Designation for BOTTOM VIEW	12BY

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

GATED AGC AMPLIFIER & SYNC CLIPPER

For operation in a 525-line, 30-frame system[f]

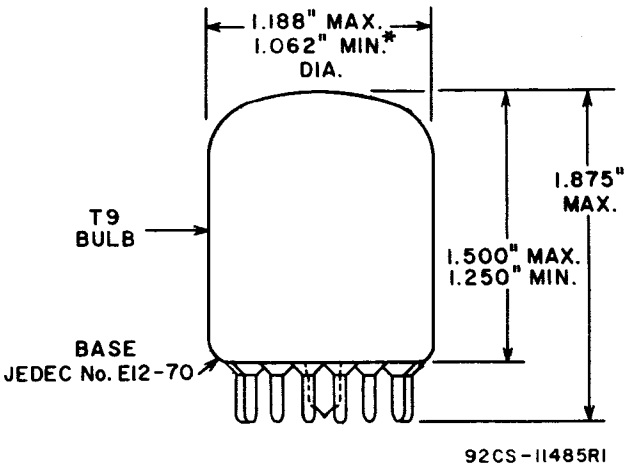
Maximum Ratings, *Design-Maximum Values:*

	Unit No.1	*Units No. 2 or 3*	
PLATE VOLTAGE	330 max.	330 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE[e]	5 max.	–	volts
GRID VOLTAGE:			
Negative-bias value	100 max.	100 max.	volts
Positive-bias value	0 max.	0 max.	volts
PEAK POSITIVE-PULSE GRID VOLTAGE	60 max.	–	volts
PLATE DISSIPATION	3 max.	1.2 max.	watts

Maximum Circuit Values:

	Unit No.1	*Units No. 2 or 3*	
Grid-Circuit Resistance	5 max.	5 max.	megohms

[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.
[e] This rating is applicable where the duty cycle of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.
[f] As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.



* APPLIES TO MINIMUM DIAMETER EXCEPT IN AREA OF SEAL.