

Medium-Mu Dual Triode

DUODECAR TYPE

GENERAL DATA

Electrical:

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

Voltage (AC or DC) 6.3 ± 0.6 volts

Current at heater volts = 6.3 0.900 amp

Peak heater-cathode voltage (Each unit):

Heater negative with
respect to cathode 200 max. volts

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

Direct Interelectrode Capacitances (Approx.):^b

	Unit No. 1	Unit No. 2	
Grid to plate	3.8	5.0	pf
Grid to cathode and heater. . .	2.2	4.0	pf
Plate to cathode and heater . .	0.48	0.54	pf

Characteristics, Class A₁ Amplifier:

	Unit No. 1	Unit No. 2	
Plate Voltage	250	150 250	volts
Grid Voltage.	-8	0 -9.5	volts
Amplification Factor.	22.5	- 15.4	
Plate Resistance (Approx.). . . .	9000	- 2000	ohms
Transconductance.	2500	- 7700	μ mhos
Plate Current	8	68 ^c 41	ma
Grid Voltage (Approx.) for plate $\mu_a = 10$	-18	- -	volts
Grid Voltage (Approx.) for plate $\mu_a = 50$	-	- -23	volts

Mechanical:

Operating Position. Any

Type of Cathodes. Coated Unipotential

Maximum Overall Length. 2.375"

Seated Length 1.750" to 2.000"

Diameter. 1.062" to 1.188"

Bulb. T9

Base. Small-Button Duodecar 12-Pin (JEDEC No. E12-70)

Basing Designation for BOTTOM VIEW. 12BM

Pin 1-Heater

Pin 2-No Internal
Connection

Pin 3-Grid of Unit
No. 2

Pin 4-Same as Pin 2

Pin 5-Plate of
Unit No. 2

Pin 6-Do Not Use

Pin 7-Cathode of
Unit No. 2

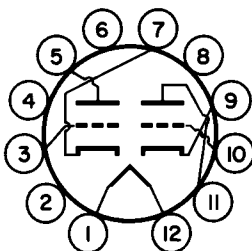
Pin 8-Same as Pin 2

Pin 9-Cathode of
Unit No. 1

Pin 10-Grid of Unit
No. 1

Pin 11-Plate of
Unit No. 1

Pin 12-Heater



VERTICAL-DEFLECTION OSCILLATOR

Values are for Unit No.1

Maximum Ratings, Design-Maximum Values:

DC PLATE VOLTAGE.	350	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	400	max.	volts
PLATE DISSIPATION	1	max.	watt

Maximum Circuit Values:

Grid-Circuit Resistance:

For fixed-bias or cathode-

bias operation. 2.2 max. megohms

VERTICAL-DEFLECTION AMPLIFIER

Values are for Unit No.2

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^d

DC PLATE VOLTAGE.	550	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE ^e	2500	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	250	max.	volts
CATHODE CURRENT:			
Peak.	150	max.	ma
Average	50	max.	ma
PLATE DISSIPATION	10	max.	watts

Maximum Circuit Values:

Grid-Circuit Resistance:

For fixed-bias operation. 2.2 max. megohms

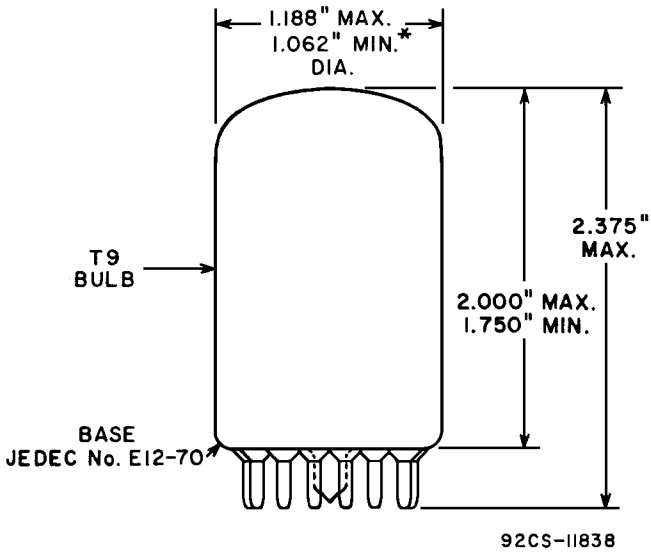
^a The dc component must not exceed 100 volts.

^b Without external shield.

^c This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

^d As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

^e This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.



* APPLIES TO MINIMUM DIAMETER EXCEPT IN AREA OF SEAL.

