Twin Diode—Medium-Mu-Twin Triode

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]			
Diode Units:			
Plate of unit No.1 to cathode, internal shield, and heater	1.9		pf
Plate of unit No.2 to cathode, internal shield, and heater	1.8		pf
Triode Units:	*Unit No.1*	*Unit No.2*	
Grid to plate	1.5	1.5	pf
Grid to cathode, internal shield, and heater	1.7	1.8	pf
Plate to cathode, internal shield, and heater	1.6	0.6	pf
Plate of diode unit No.1 to plate of diode unit No.2	0.7		pf
Triode grid to plate of diode unit No.1	0.015	0.005	pf
Triode grid to plate of diode unit No.2	0.02	0.005	pf
Plate of triode unit No.1 to plate of triode unit No.2	0.9		pf

Characteristics, Class A_1 Amplifier (Each Triode Unit):

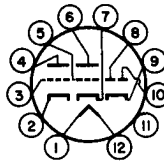
Plate Voltage	250	volts
Grid Voltage	-8	volts
Amplification Factor	18	
Plate Resistance (Approx.)	7200	ohms
Transconductance	2500	μmhos
Plate Current	10	ma
Grid Voltage (Approx.) for plate μa = 50	-20	volts

6B10

Mechanical:

Operating Position	Any
Types 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	12BF

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



TRIODE UNITS — AMPLIFIER — Class A_1

Values are for Each Unit

Maximum Ratings, *Design-Maximum Values:*

PLATE VOLTAGE	330 max.	volts
DC CATHODE CURRENT	20 max.	ma
PLATE DISSIPATION	3 max.	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.25 max.	megohm
For cathode-bias operation	1 max.	megohm

DIODE UNITS — Two

Values are for Each Unit

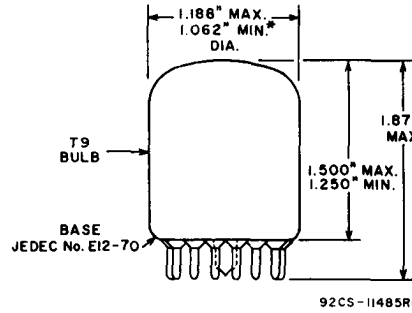
Maximum Ratings, *Design-Maximum Values:*

PLATE CURRENT	5 max.	ma

Characteristics, Instantaneous Value:

Plate Current for plate volts = 5	20	ma

[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.



* APPLIES TO MINIMUM DIAMETER EXCEPT IN AREA OF SEAL.