

Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

FRAME-GRID CONSTRUCTION

$g_m = 30000 \mu\text{mho}$

For Video-Output Amplifier Service in Color-TV Receivers

ELECTRICAL CHARACTERISTICS

Bogey Values^a

		Series	Parallel	
Heater Voltage (AC or DC) . . .	E_h	11.0	5.50	V
Heater Current	I_h	300	600	mA
Direct Interelectrode Capacitances				
Without external shield				
Grid No.1 to plate	C_{g1-p}		0.15 max	pF
Input: G1 to (K, G3 + IS, G2, H)	C_i		14	pF
Output: P to (K, G3 + IS, G2, H)	C_o		5.0	pF

For the following characteristics, see Conditions

Plate Resistance (Approx.) . . .	r_p	40	k Ω
Transconductance	g_m	30000	μmho
DC Plate Current	I_b	30	mA
DC Grid-No.2 Current	I_{c2}	5.2	mA
Cutoff DC Grid-No.1 Voltage . .	$E_{c1(co)}$	-4.5	V

Plate $\mu\text{A} = 100$

Conditions

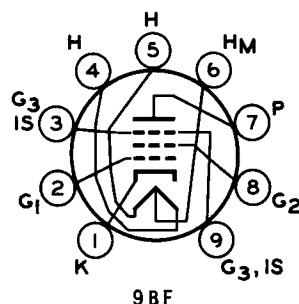
Heater Voltage	E_h	Bogey Value	V
DC Plate Supply Voltage . . .	E_{bb}	200	V
DC Grid-No.3 Voltage	E_{c3}	0	V
DC Grid-No.2 Supply Voltage . .	E_{cc2}	135	V
DC Grid-No.1 Supply Voltage . .	E_{cc1}	0	V
Cathode Resistor	R_k	47	Ω

MECHANICAL CHARACTERISTICS

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	2.625 in
Maximum Seated Length	2.375 in
Maximum Diameter	0.875 in
Dimensional Outline (JEDEC 6-3)	See General Section
Envelope	JEDEC T6-1/2
Base	Small-Button Noval 9-Pin (JEDEC E9-1)

TERMINAL DIAGRAM (Bottom View)

- Pin 1 - Cathode
- Pin 2 - Grid No.1
- Pin 3 - Grid No.3,
Internal Shield
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Heater Tap
- Pin 7 - Plate
- Pin 8 - Grid No.2
- Pin 9 - Grid No.3,
Internal Shield



9BF



DESIGN-MAXIMUM RATINGS

For operation as a Class A₁ Amplifier Tube

DC Plate Voltage.	E_b	330	V
DC Grid-No.2 (Screen-Grid)			
Supply Voltage	E_{cc2}	See Grid-No.2 Input Rating Chart at front of Receiving Tube Section	
DC Grid-No.1 (Control-Grid)			
Voltage			
Positive-bias value	E_{c1}	0	V
Heater-Cathode Voltage			
Peak.	e_{hkm}	±200	V
Average ^b	$E_{hk(av)}$	100	V
Heater Voltage (AC or DC) . .	E_f		
Series.	-	9.9 min	12.1 max V
Parallel.	-	4.95 min	6.05 max V
Grid-No.2 Input	P_{g2}		
For $E_{c2} \leq 165$ V	-	1	W
For $E_{c2} > 165$ V and ≤ 330 V	-	See Grid-No.2 Input Rating Chart at front of Receiving Tube Section	
Plate Dissipation	P_b	7	W

MAXIMUM CIRCUIT VALUES

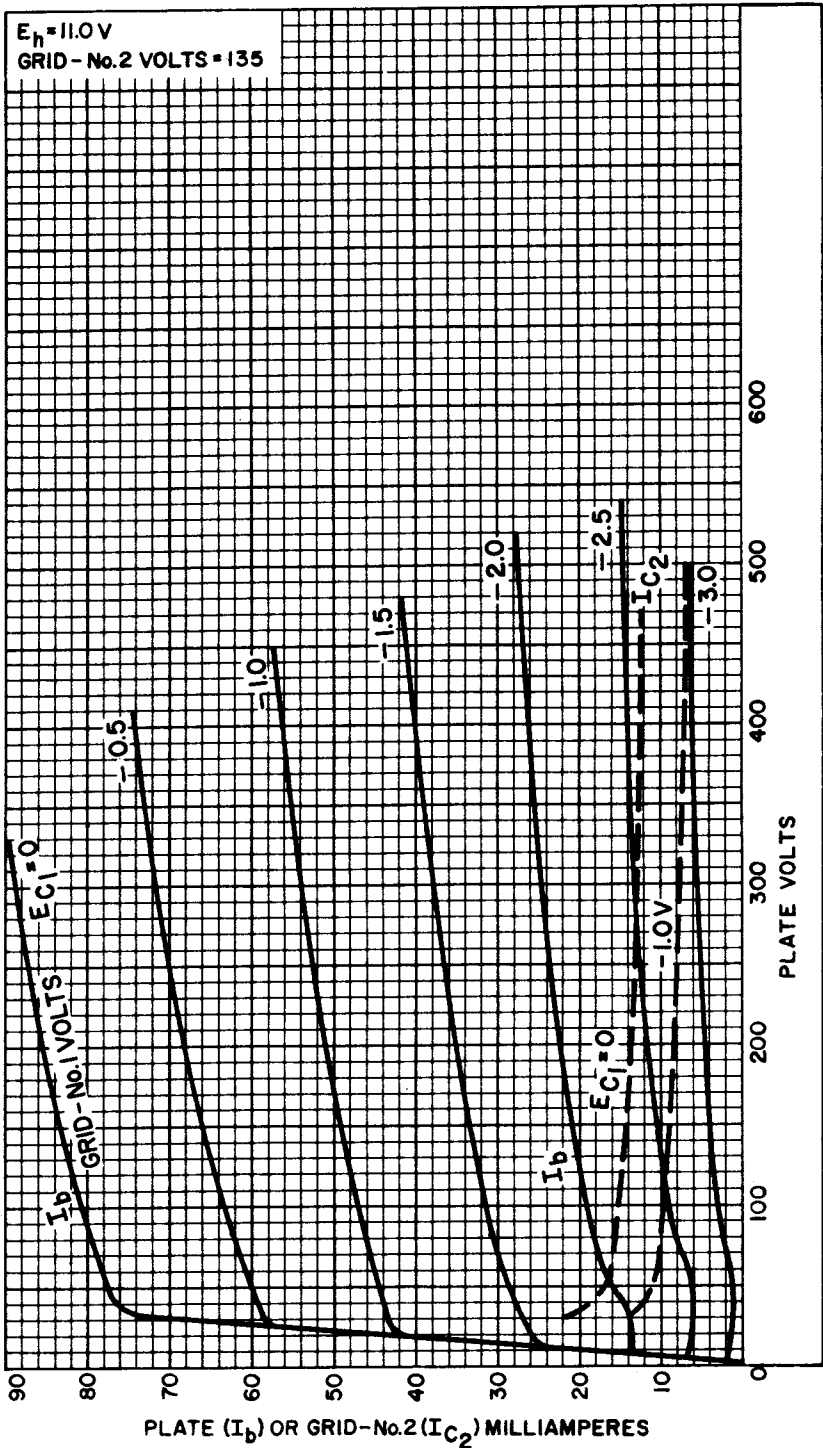
Grid-No.1 Circuit Resistance	$R_{g1(ckt)}$		
For fixed-bias operation. .	-	0.1	MΩ
For cathode-bias operation.	-	0.25	MΩ

^a Unless otherwise specified.

^b Measured with a dc meter.



Typical Characteristics



92CM-13833



Typical Characteristics

