

High-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

For Color-Killer, Sound IF Amplifier, and Band-pass-Amplifier Applications in TV Receivers

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	0.600	amp
Peak heater-cathode voltage:		

	Unit:	Triode	Pentode ^a	
Heater negative with respect to cathode	200	max.	20	max. volts
Heater positive with respect to cathode	200 ^b	max.	20	max. volts

Direct Interelectrode Capacitances:

	Without External Shield	With External Shield ^c	
<i>Triode Unit:</i>			
G _T to P _T	3.0	3.0	pf
Input: G _T to (H+G _{3P} +I _S , K _T) . . .	3.2	3.2	pf
Output: P _T to (H+G _{3P} +I _S , K _T) . . .	1.6	2.4	pf

Pentode Unit:

G _{1P} to P _P	0.046	max.	0.030	max.	pf
Input: G _{1P} to (H+G _{3P} +I _S , G _{2P} , K _P) .	7.5		7.5		pf
Output: P _P to (H+G _{3P} +I _S , G _{2P} , K _P) .	2.2		2.8		pf
G _T to P _P	0.018	max.	0.003	max.	pf
G _{1P} to P _T	0.006	max.	0.002	max.	pf

Characteristics, Class A₁ Amplifier:

	Unit:	Triode	Pentode	
Plate Voltage		250	125	volts
Grid-No.2 Voltage		—	125	volts
Grid-No.1 Voltage		—2	—1	volts
Amplification Factor		100	—	
Plate Resistance (Approx.)		31500	150000	ohms
Transconductance		3200	10000	μmhos
Plate Current		1.8	12	ma
Grid-No.2 Current		—	4.5	ma
Grid-No.1 Voltage (Approx.) for plate μ _a = 20		—3.5	—7	volts

Mechanical:

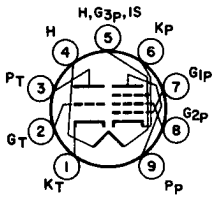
Operating Position	Any
Type of Cathodes	Coated Unipotential
Maximum Overall Length	2-3/16"
Maximum Seated Length	1-15/16"



6KT8

Length, Base Seat to Bulb Top
 (Excluding Tip) 1-9/16" ± 3/32"
 Diameter 0.750" to 0.875"
 Dimensional Outline. See *General Section*
 Bulb T6-1/2
 Base Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW 9QP

Pin 1 - Triode Cathode
 Pin 2 - Triode Grid
 Pin 3 - Triode Plate
 Pin 4 - Heater
 Pin 5 - See Footnote ^a
 (Heater, Pentode
 Grid No.3,
 Internal Shield)
 Pin 6 - Pentode Cathode
 Pin 7 - Pentode Grid No.1
 Pin 8 - Pentode Grid No.2
 Pin 9 - Pentode Plate



AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

	Unit:	Triode	Pentode	
Plate Voltage.		330 max.	330 max.	volts
Grid-No.2 Supply Voltage		-	330 max.	volts
Grid-No.2 Voltage.		See <i>Grid-No.2 Input Rating Chart</i> at front of Receiving Tube Section		
Grid-No.1 Voltage:				
Positive-bias value.		0 max.	0 max.	volts
Grid-No.2 Input:				
For grid-No.2 voltages up to 165 volts.		-	0.55 max.	watt
For grid-No.2 voltages between 165 and 330 volts.		See <i>Grid-No.2 Input Rating Chart</i> at front of Receiving Tube Section		
Plate Dissipation.		1 max.	2.5 max.	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:				
For fixed-bias operation		0.5 max.	0.25 max.	megohm
For cathode-bias operation		1 max.	1 max.	megohm

^a Pin No.5 (Pentode Grid No.3, Internal Shield, and Heater) should be operated at or near ground potential. If the peak cathode-to-grid-No.3 voltage exceeds +20 volts, undesirable changes in the tube characteristics may result.

^b The dc component must not exceed 100 volts.

^c With external shield JEDEC No.315 connected to pins 4 and 5.

