

MAXIMUM RATINGS (Design-Centre Values)Pentode Section

Plate voltage (without current)	550	volts
Plate voltage	250	volts
Plate dissipation	4	watts
Grid No.2 voltage (without current)	550	volts
Grid No.2 voltage	250	volts
Grid No.2 dissipation	1.7	watts
Cathode current	40	mA
External grid No.1 resistance:		
with cathode bias	2	megohms
with fixed bias	1	megohm
Heater-cathode voltage	200	volts
External heater-cathode resistance	20,000	ohms

Triode Section

Plate voltage (without current)	±550	volts
Plate voltage	±250	volts
Peak plate voltage (see note 1)	600	volts
Plate dissipation	1	watt
Cathode current	12	mA
External grid No.1 resistance:		
with cathode bias	3	megohms
with fixed bias	1	megohm
Heater-cathode voltage	200	volts
External heater-cathode resistance	20,000	ohms

TYPICAL CHARACTERISTICSPentode Section

Plate voltage	170	200	220	volts
Grid No.2 voltage	170	200	220	volts
Grid No.1 voltage	-2.1	-2.9	-3.4	volts
Plate current	18	18	18	mA
Grid No.2 current	3.0	3.0	3.0	mA
Mutual conductance	11,000	10,400	10,000	μmhos
Plate resistance				
(minimum)	0.1	0.13	0.15	megohm
Amplification factor				
(grid No.2 to grid No.1)	36	36	36	
Max. grid No.1 voltage at				
grid No.1 current = +0.3 μA	-1.3	-1.3	-1.3	volts

Triode Section

Plate voltage	200	volts
Grid voltage	-1.7	volts
Plate current	3	mA
Mutual conductance	4000	μmhos
Amplification factor	65	
Grid voltage at grid		
current = + 0.3 μA	-1.3	volts

"Miniwatt" 6DX8

TYPICAL OPERATING CONDITIONS

Pentode Video Amplifier

Plate supply voltage	170	200	220	volts
Grid No.2 voltage	170	200	220	volts
Plate load resistor	3000	3000	3000	ohms
Grid No.1 voltage	-2	-2.8	-3.3	volts
Plate current	18	18	18	mA
Grid No.2 current	3.2	3.1	3.1	mA
Mutual conductance	10,400	10,000	9700	μmhos

Pentode Audio Power Amplifier-Class A (Single Valve)

Plate supply voltage	200	250	volts
Grid No.2 supply voltage	200	250	volts
Cathode resistor	113	235	ohms
Zero-signal plate current	20	16.0	mA
Max.-signal plate current	18.5	15.0	mA
Zero-signal grid No.2 current	3.4	2.7	mA
Max.-signal grid No.2 current	5.4	4.3	mA
R.M.S. signal input voltage	1.59	1.44	volts
Plate load resistance	11,000	17,500	ohms
Power output	1.65	1.65	watts
Total harmonic distortion	10	10	%

Pentode Audio Power Amplifier-Class AB Push-Pull (Two Valves)

Plate supply voltage	250	volts
Grid No.2 supply voltage	250	volts
Common cathode resistor	117	ohms
Zero-signal plate current	2x16	mA
Max.-signal plate current	2x18	mA
Zero-signal grid No.2 current	2x2.7	mA
Max.-signal grid No.2 current	2x4.7	mA
R.M.S. signal input voltage	3.5	volts
Plate load resistance	17,500	ohms
Power output	5.4	watts
Total harmonic distortion	4	%

NOTES

1. With plate current less than 0.1 mA.
Maximum voltage pulse duration 18% of a cycle
with a maximum of 18 μsec.