

Designed to Meet Military Specifications and Critical Industrial Applications

 Type	Proto- type	Name	Description and/or Difference Between Type and Prototype	Special Tests and Controls												
				Shock	Fatigue	Vibration	Glass Strain	AF Noise, Microphones	Stability	Inertness	High Altitude	Heater Cycling	Room Temp.	Elevated Bulb Temp.		
			Rating or Characteristic	Premium Type	Proto- Type	Life Test										
0A2-WA	0A2	Voltage Regulator*	This type is designed to meet the indicated military specification.	✓	✓	✓	✓	—	—	✓	✓	—	—	—	—	
0B2-WA	0B2	Voltage Regulator*	This type is designed to meet the indicated military specification.	✓	✓	✓	✓	—	—	✓	✓	—	—	—	✓	
2D21-W	2D21	Thyratron Tetrode*	This type is designed to meet the indicated military specification.	✓	✓	✓	—	✓	—	—	—	—	—	—	—	
6AC7-W	6AC7	Sharp Cutoff Pentode*■	This type is designed to meet the indicated military specification.	✓	✓	✓	—	✓	—	—	—	—	—	—	—	
6AU6-WA	6AU6	Sharp Cutoff Pentode*	This type is designed to meet the indicated military specification.	✓	✓	✓	✓	—	✓	✓	✓	✓	—	✓	✓	
6J4-WA	6J4	High-Mu Triode*	This type is designed to meet the indicated military specification.	✓	✓	—	✓	—	✓	✓	✓	✓	—	✓	—	
6J6-WA	6J6	Medium-Mu Twin Triode*	This type is designed to meet the indicated military specification.	✓	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	✓	
12AT7-WA	12AT7	High-Mu Twin Triode§	This type is designed to meet the indicated military specification.	✓	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	—	
5636	—	Sharp-Cutoff Pentode*	Heater-Cathode Type. For gated amplifier, delay and mixer circuits up to 400 Mc, and gain-controlled amplifier circuits.	✓	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	✓	
5639	—	Sharp-Cutoff Pentode*	Heater-Cathode Type. For use in high-gain wide-band circuits.	✓	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	✓	
5651	—	Voltage Regulator*	For use in equipment where extreme voltage stability is required.	—	—	✓	—	✓	—	✓	—	—	✓	—	—	
5651-WA	—	Voltage Regulator*	This type is designed to meet the indicated military specification.	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	✓	✓	
5654	6AK5	Sharp-Cutoff Pentode*	None	✓	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	✓	
5654/ 6AK5-W	6AK5	Sharp-Cutoff Pentode*	This type is designed to meet the indicated military specification.	✓	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	✓	
5654/ 6AK5-W/ 6096	6AK5	Sharp-Cutoff Pentode*	This type is designed to meet the indicated military specification.	✓	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	✓	
5670	2C51	Medium-Mu Twin Triode§	This type is designed to meet the indicated military specification.	✓	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	✓	
5670-WA	2C51	Medium-Mu Twin Triode§	This type is designed to meet the indicated military specification.	✓	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	✓	
5686	—	Beam Power Tube§	Heater-Cathode Type. For renewal use only.	✓	✓	✓	✓	—	✓	✓	✓	✓	—	✓	—	
5718	—	Medium-Mu Triode*	Heater-Cathode Type. Uhf amplifier and oscillator. Useful power output at 500 Mc., nearly one watt.	✓	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	✓	
5719	—	High-Mu Triode*	Heater-Cathode Type. Useful as an audio amplifier in mobile receivers.	✓	✓	✓	✓	✓	✓	✓	✓	✓	—	✓	✓	
5725	6AS6	Sharp-Cutoff Pentode*	Bulb Temperature, Max. °C (at hottest point)	165	120	✓	✓	✓	✓	✓	✓	✓	—	✓	—	
5726	6AL5	Twin Diode*	Controlled Plate-Current Balance	Yes	No	✓	✓	✓	—	✓	✓	✓	—	✓	✓	
5726/ 6AL5-W	6AL5	Twin Diode*	This type is designed to meet the indicated military specification.	✓	✓	✓	✓	—	✓	✓	✓	✓	—	✓	✓	

For key to terminal connections see page 30.

* 7-pin miniature type.

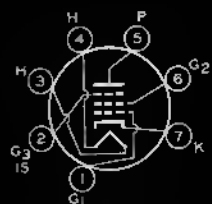
§ 9-pin miniature type.

* Subminiature type with flexible leads.

■ Small wafer octal 8-pin type.

0A2-WA 0B2-WA
5651 5651-WA

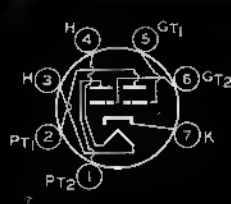
6AC7-W



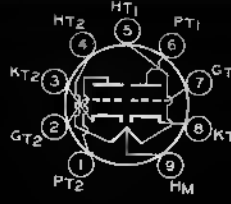
6AU6-WA



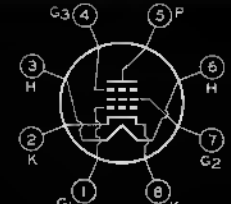
6J4-WA



6J6-WA



12AT7-WA



5636



5639

PREMIUM TUBES

Designed to Meet Military Specifications and Critical Industrial Applications

Cathode		Maximum Dimensions Inches		Class of Service	Maximum Ratings				Operating Conditions and Characteristics								Type
					Plate Volts	Plate Dissipation Watts	Cathode Current Ma.	Grid-No. 2 Input Watts	Plate Supply Volts	Grid-No. 1 Volts(V) or Cathode Resistance Ohms	Grid-No. 2 Supply Volts	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance Micro-mhos	Amplification Factor	Power Output Watts	
Cold Cathode		2 5/8	3/4	Voltage Regulator	For data refer to MIL-E-1/290B specification [▲]												0A2-WA
Cold Cathode		2 5/8	3/4	Voltage Regulator	For data refer to MIL-E-1/291 specification [▲]												0B2-WA
6.3	0.6	2 1/8	3/4	High-Sensitivity Control Service	For data refer to MIL-E-1/756B specification [▲]												2D21-W
6.3	0.45	2 5/8	—	Class A ₁ Amplifier	For data refer to MIL-E-1/354 specification [▲]												6AC7-W
6.3	0.3	2 1/8	3/4	Class A ₁ Amplifier	For data refer to MIL-E-1/1 specification [▲]												6AU6-WA
6.3	0.4	2 1/8	3/4	Class A ₁ Amplifier for UHF Service	For data refer to MIL-E-1/619D specification [▲]												6J4-WA
6.3	0.45	2 1/8	3/4	Class A ₁ Amplifier Each Unit	For data refer to MIL-E-243B specification [▲]												6J6-WA
6.3 12.6	0.3 0.15	2 3/16	7/8	Class A ₁ Amplifier Each Unit	For data refer to MIL-E-1/3A specification [▲]												12AT7-WA
6.3	0.15	1 3/8 [†]	0.383	Class A ₁ Amplifier	165	1.1	—	0.7	100 100	150 150	100 100	5.6 4	110000 50000	3200 1950	Grid-No. 3 Volts, 0 Grid-No. 3 Volts, -1		5636
6.3	0.45	1 3/4 [†]	0.4	Class A ₁ Amplifier	165	4.0	40	1.0	150	100	100	21	50000	9000	—	—	5639
Cold Cathode		2 1/8	3/4	Voltage-Reference Tube	Ambient Temp., -55° to +90°C Approx. DC Starting Volts, 107 Max. Starting Ma., 100 Min. DC Anode-Supply Volts, 115 Approx. DC Operating Volts, 87 Regulation Range, 1.5 to 3.5 Ma. Regulation Volts, 115												5651
Cold Cathode		2 1/8	3/4	Voltage-Reference Tube	For data refer to MIL-E-1/825A specification [▲]												5651-WA
6.3	0.175	1 3/4	3/4	Voltage-Reference Tube	200	1.65	—	0.55	180	180	120	2.4	500000	5100	—	—	5654
6.3	0.175	1 3/4	3/4	Voltage-Reference Tube	For data refer to MIL-E-1/4A specification [▲]												5654/ 6AK5-W
6.3	0.175	1 3/4	3/4	Voltage-Reference Tube	For data refer to MIL-E-1/236 specification [▲]												5654/ 6AK5-W/ 6096
6.3	0.35	1 3/4	7/8	Class A ₁ Amplifier Each Unit	For data refer to MIL-E-1/5C specification [▲]												5670
6.3	0.35	1 3/4	7/8	Class A ₁ Amplifier Each Unit	For data refer to MIL-E-1/247 specification [▲]												5670-WA
6.3	0.35	2 3/16	7/8	Class A ₁ Amplifier	250	7.5	—	3.0	250	-12.5v	250	27	45000	3100	—	2.7	5686
6.3	0.15	1 3/8 [†]	0.4	Class C Amplifier and Oscillator	Maximum Ratings, Absolute Values: DC Plate Volts, 165 DC Grid Volts, -55 DC Plate Ma., 22 DC Grid Ma., 5.5 Plate Dissipation, 3.3 Watts												5718
6.3	0.15	1 3/8 [†]	0.4	Class A ₁ Amplifier	165	0.55	—	—	150	680	—	1.85	30500	2300	70	—	5719
6.3	0.175	1 3/4	3/4	Class A ₁ Amplifier	200	1.65	20	0.55	120	-2v	120	5.2	—	3200	—	—	5725
6.3	0.3	1 3/4	3/4	Half-Wave Rectifier	Maximum Ratings, Absolute Values: Peak Inverse Plate Volts, 360 DC Output Ma. per Plate, 10 Peak Plate Ma. per Plate, 60 Peak Heater-Cathode Volts, ±360												5726
6.3	0.3	1 3/4	3/4	Half-Wave Rectifier	For data refer to MIL-E-1/7B specification [▲]												5726/ 6AL5-W

[▲] A copy of this specification may be obtained from the Director of the Armed Services Electro-Standards Agency (ASESA) at Fort Monmouth, New Jersey.

[†] Excluding flexible leads.

