

## TUNG-SOL

## MILITARY AND INDUSTRIAL TUBE TYPE SECTION

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FOR  
MILITARY AND INDUSTRIAL TUBE TYPE SECTION**

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\* INDICATES AN ADDITION.

→ INDICATES A CHANGE.

PRINTED IN U. S. A.





# STANDARD ELECTRON TUBES

## STANDARD ELECTRON TUBES

MIL-STD-200D

MAY 29, 1958

### RECEIVING TUBES

FILAMENT VOLTAGE	DIODES	TRIODES	TWIN TRIODES	PENTODES		MIXERS AND CONVERTERS	POWER OUTPUT			RECTIFIERS
				REMOTE	SHARP		PENTODES	TRIODES	RECTIFIERS	
1.25 and 1.4	†1A3	—	‡3A5	—	†*1AD4 *1AH4	—	‡3B4 3V4 †*5672 †*6088	—	—	†1B3GT ‡1Z2
5.0	—	—	—	—	—	—	—	—	—	†5RAWGA †5Y3WGTA
6.3	*5647 †5726/6AL5W *5829WA †*5896 †*6110	†6C4WA *5703WA *5703WB †*5718 †*5719 *5744WA *5744WB *6222 *6533	†12AT7WA ‡5670 ‡5751 *5755 ‡5814A †*6021 †*6111 †*6112	†5749/6BA6W †*5899 *6206	†6AH6 †6AL6WA †5664/6AK5W *5702WA *5702WB †*5840 *6205	†*5636 †5725/6AS6W †5750/6BE6W *5784WA	†Z230 6AG7Y 6AN5WA 6B66G †6L6WGB †*5639 †5686 †*5902 †6005/6AQ5W 6094 6384	5687WA †6080WA	†*5641 †6203	

### TRANSMITTING TUBES

TRIODES	TETRODES	TWIN TETRODES	PULSE MODULATORS	VACUUM	RECTIFIERS GAS	GRID CONTROL		CLIPPER TUBES
						GRID CONTROL	CLIPPER TUBES	
100TH 250TH †450TL 811A	†4-400A †4D21 †4-65A †4X150A 4X250 †5933WA	†832A †5894	†3D21A †3E29 †4C35A †4PR60A †5C22/HT-415 †1258 †5948 †5949 †6130	†2X2A †3B24WA †371B 836 1616 †8020	OZ4A/1003 884 869B ‡3B28 4B26 †4B32 6C 16B	†C1K 884 *5643 †5684/C31/A †5685/C6J †5696 †5727/2D21W	†3B29 †4B31	

\* Subminiature type.

† Also U.S. tubes on NATO priority list of electronic tubes (valves).

# STANDARD ELECTRON TUBES

MICROWAVE TUBES			MISCELLANEOUS TUBES AND SEMICONDUCTOR DEVICES						
MAGNETRONS	GAS SWITCHING		KLYSTRONS	DIODES	TRIODES	CATHODE RAY	DIODES (CRYSTALS)	PHOTOTUBES	VOLTAGE REGULATORS
	ATR	TR							
2J51A	1B35A	1B23	2K22	2B22	5B93	12BP1	11N21C	1P21	10A2WA
1J450	1B36	1B26	2K26			3ACP (1A, 7A)	11N23C		10B2WA
4J52A	1B37A	1B27	12K28			13WP1	11N23CR		†5644
1J454-59	1B44	1B50	2K29			5AFP (1, 7)	11N25		5651WA
1J478	1B51	1B55	2K50			15CP (1A, 7A, 12)	11N26		†5783WA
1586	1B52	1B58A	16BL6			15FP7A	11N31		†5787WA
5607	1B53	1B63A	726A, B, C			5FP14A	11N32		
15657	1B56	5853	5981			5J1A	11N53		
6027	5792	5863	6310			5RP (7A, 11A)	11N78		
	5793	5865	6312			7MP7	11N98		
	5883	5921				10KP7	1N253		
	5922	5927				12SP7D	1N254		
							1N255		
							1N256		
							1N277		
							1N281		
							1N457		
							1N458		
							1N459		

\* Subminiature type.  
 † Also U.S. tubes on NATO priority list of electronic tubes (valves).

**TUNG-SOL**

**SERIES REGULATOR TUBES**

**POWER DISSIPATION**

	Total Plate Dissipation	26 to 30 W.	60 W.	100 W.
	Low Mu	6AS7G 6080WA*	6336 6336A*	7241*
	Medium Mu	5998	6528*	7242*

**TYPICAL VALUES FOR REGULATOR SERVICE PER TUBE**

Type	Total Plate Current	Range of Tube Voltage Drop	Minimum Tube Drop	Grid Voltage Swing
6080WA*, 6AS7G	200 mA 100	75 v. 200	35 v. 25	50 v. 140
5998	200 100	80 200	45 30	20 52
6336A*, 6336	500 200	50 235	50 35	25 95
6528*	400 200	65 225	70 45	10 35
7241*	750 300	65 270	50 35	25 110
7242*	600 250	80 335	70 40	13 45

**OTHER PERTINENT CHARACTERISTICS PER TUBE**

Type	Max. Plate Current	Max. Plate Voltage	Mu	Gm	Bulb	Construction
6080WA*, 6AS7G	250. mA	250. V.	2.0	14,000 $\mu$ M	T12 ST16	Twin Triode
5998	280	275	5.5	28,000	ST16	Twin Triode
6336A*, 6336	800	400	2.7	27,000	TT16	Twin Triode
6528*	600	400	9.0	74,000	TT16	Twin Triode
7241*	1000	400	2.7	40,500	TT18	Single Anode Three Cathodes
7242*	900	400	9.0	111,000	TT18	Single Anode Three Cathodes

\*Rugged, long life tubes.

**CHATHAM ELECTRONICS**  
 Division of Tung-Sol Electric Inc.  
 5-15-58

DESIGNED BY V. S. A.



**MILITARY, INDUSTRIAL, AND PREMIUM TYPES**

The information in this section includes data on tube types not intended for usage in the entertainment field. The industrial types include thyratrons, cold-cathode grid controlled tubes, cold-cathode regulator and reference tubes, series pass tubes for power supply service, etc. The military and premium types include types intended for military and industrial application, such as airborne and mobile equipment, which require the utmost in performance and reliability under severe conditions of mechanical shock and vibration.

Much of the data on premium and military types has been taken from the MIL-E-10 specifications in effect at the time of publication. While all possible precautions have been taken to assure the accuracy of this material, *TUNG-SOL ELECTRIC INC.* assume no liability or responsibility with regard to its use.

