

# Transmitting Tube Ratings vs Operating Frequency

The MAXIMUM RATINGS given for each type on its data pages apply only when the type is operated at frequencies lower than some specified value which depends on the design of the type. As the frequency is raised above the specified value, the radio-frequency currents, dielectric losses, and heating effects increase rapidly. Most types can be operated above their specified maximum frequency provided the plate voltage and plate input are reduced in accordance with the information given in the following tabulation.

TUBE TYPE	OPERATING FREQUENCY Mc	MAXIMUM PERMISSIBLE PERCENTAGE OF MAXIMUM RATED PLATE VOLTAGE & PLATE INPUT		
		TELEPHONY		TELEGRAPHY
		Class B, Class C Grid or Suppressor Modulated	Class C Plate-Modulated	Class C Unmodulated
8D21	300	100	-	100
207	Same as for Type 892			
211	15	100	100	100
	30	88	80	80
	80	70	50	50
801-A	60	100	100	100
	75	93	80	80
	120	78	50	50
803	20	100	100	100
	40	86	77	77
	60	80	60	60
805	30	100	100	100
	45	90	82	82
	80	77	55	55
807	60	100	100	100
	80	90	80	80
	125	75	55	55
809	60	100	100	100
	70	93	88	88
	120	75	50	50
810	30	100	100	100
	60	88	70	70
	100	80	50	50
813 <sup>a</sup>	30	100	100	100
	60	88	75	75
	120	76	50	50

<sup>a</sup> In Self-Rectifying Oscillator or Amplifier Service, and in Amplifier or Oscillator Service with Separate, Rectified, Unfiltered, Single-Phase, Full-Wave Plate Supply, the 813 has the same maximum permissible percentages as those shown for Class C Telegraphy.



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TUBE TYPE	OPERATING FREQUENCY Mc	MAXIMUM PERMISSIBLE PERCENTAGE OF MAXIMUM RATED PLATE VOLTAGE & PLATE INPUT		
		TELEPHONY		TELEGRAPHY
		Class B, Class C Grid or Suppressor Modulated	Class C Plate- Modulated	Class C Unmodulated
814	30	100	100	100
	50	90	80	80
	75	85	64	64
815	125	100	100	100
	175	85	80	80
	200	75	70	70
828	30	100	100	100
	50	90	80	80
	75	80	65	65
830-B	15	100	100	100
	30	87	77	77
	60	74	54	54
832-A	200	-	100	100
	250	-	89	89
834	100	100	100	100
	170	89	80	80
	350	73	53	53
835	20	100	100	100
	40	85	80	80
	100	70	50	50
837	20	-	100	100
	40	-	76	76
	60	-	62	62
838	30	100	100	100
	60	85	75	75
	120	70	50	50
860	Same as for Type 838			
880		<i>Voltage</i>	<i>Input</i>	
	25	100	100	100
	50	80	94	75
	75	68	85	62
	100	60	75	50
889-A	50	100	100	100
	100	85	75	75
	150	72	50	50
889R-A				<i>Volt. Input</i>
	40	100	100	100 100
	65	85	78	87 73
	100	72	60	65 50



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TUBE TYPE	OPERATING FREQUENCY Mc	MAXIMUM PERMISSIBLE PERCENTAGE OF MAXIMUM RATED PLATE VOLTAGE & PLATE INPUT		
		TELEPHONY		TELEGRAPHY
		Class B, Class C Grid or Suppressor Modulated	Class C Plate- Modulated	Class C Unmodulated
891	1.6	--	--	100
	7.5	--	--	75
	20	--	--	50
891-R	1.6	--	--	100
	7.5	--	--	75
	20	--	--	50
892	1.6	100	100	100
	7.5	85	85	75
	20	76	75	50
892-R	1.6	100	100	100
	7.5	85	75	75
	20	76	50	50
1613	45	--	100	100
	60	--	90	90
	90	--	85	85
1614	80	--	100	100
	120	--	75	75
1619	45	100	100	100
	60	93	90	90
	90	85	77	77
1624	60	100	100	100
	80	90	80	80
	125	75	55	55
1625	Same as for Type 807			
1626	30	--	--	100
	60	--	--	96
	90	--	--	93
5713	220	--	--	100
5763	50	--	<i>Volt. Input</i> 100 100	<i>Volt. Input</i> 100 100
	175	--	100 80	100 80
	1.6	100	100	<i>Volt. Input</i> 120 112.5
5771	25	100	100	100
	50	75	75	75
	160	--	100	100
5786	160	--	100	100
6417	Same as for Type 5763			
8005	60	100	100	100
	80	90	75	75
	100	83	60	60

