



**Reference Data For
General Electric
Ceramic Tubes**

CANCELLED

TUBE DEPARTMENT

GENERAL  ELECTRIC

Owensboro, Kentucky

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Manufactured in the United States of America

FORWARD

This publication contains published data sheets and application notes on General Electric Ceramic tube types. Thirty-one of these types are registered EIA types, and are available from stock. Seventeen are developmental types and are available from stock or with several weeks lead time.

This line of tubes represent the state of the art in many areas. Major advantages offered by various types are as follows:

- Small Size
- Low Noise
- High Gain
- Large Gain-Band Width Products
- Operation to C and X Band
- High Temperature Tolerance, 400-500° C
- Tolerance to Shock and Vibration
- Radiation Resistance
- Long Pulse Ratings
- High Pulsed Duty Factors

These devices compete favorably in many applications with low power klystrons, TWT's, parametric amplifiers, varactors, and transistors.

This publication is revised periodically, but supplements are not distributed between publications. For the latest information on new developments or applications of General Electric Ceramic tubes, contact our Regional OEM Sales Manager in your area, or a franchised General Electric Industrial Tube Distributor.

RESEARCH AND DEVELOPMENT AREAS

1. High Current Density Cathodes
2. Lower Heater Power Designs
3. Fast Warm-Up Heater-Cathode Structures
4. High Dissipation Anodes
5. X Band (10 Gc.) CW and Pulse Triodes
6. Integral Tube-Cavity Microwave Oscillators
7. Tunnel Emission Cathodes
8. Radiation Environment Performance Evaluation

OTHER USES FOR CERAMIC TUBES

- . Frequency Multipliers
- . RF Power Source For Varactor Multipliers
- . Microwave Mixers and Detectors
- . Doppler Radars For Traffic Control and Motion Detection
- . Broadband Amplifiers
- . Video Amplifiers
- . Audio, Servo, and Sub-Audio Amplifiers
- . High-Voltage Rectifiers
- . High-Voltage Regulators
- . Microwave Modulators

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7841	Description and Rating	GL-6251
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A-0897	ZP-1015
Y-1012	ZP-1018
Y-1032	ZP-1024
Y-1124	ZP-1025
Y-1223	ZP-1026
Y-1236	ZP-1034
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CERAMIC TUBE SELECTION CHART

Classification	Type	Approx. Envelope Diameter	Type of Terminals	Plate Dissipation (Watts)	Maximum Ratings	Current (milliamperes)	G _m	u	Typical Application	Useful Frequencies Extend to **
Triode - Class A Operation	2C40*	1.3"	Octal	6.5Δ	I _b = 25	4850	36	UHF Amp.	3000 mc	
	2C40A*	1.3"	Octal	6.5Δ	I _b = 25	5100	35	UHF Amp.	3000 mc	
	6299	0.5"	Coax.	2.0Δ	I _b = 12	15000	110	Low-Noise UHF Amp.	3000 mc	
	6771	0.5"	Coax.	6.25Δ	I _b = 25	23000	90	UHF Amp.	4000 mc	
	7077	0.3"	Coax.	1.0	I _k = 10	10000	90	Low-Noise UHF Amp.	3000 mc	
	7296	0.5"	Lug (T)	5.5	I _k = 30	16500	90	VHF Amp.	500 mc	
	7462	0.3"	Lug (T)	1.0	I _k = 10	10500	94	Low-Noise VHF Amp.	500 mc	
	7588	0.5"	Lug (T)	5.5	I _k = 30	45000	175	Low-Noise VHF Amp.	500 mc	
	7625	0.3"	Lug	0.8	I _k = 3.6	1400	80	Low-Level AF Amp.	-----	
	7644	0.5"	Coax.	2.0	I _b = 12	15000	110	Low-Noise UHF Amp.	3000 mc	
	7768	0.5"	Coax.	5.5	I _k = 30	50000	225	Low-Noise VHF Amp.	3000 mc	
	7784	0.5"	Coax.	2.0Δ	I _b = 12	15000	110	Low-Noise UHF Amp.	3000 mc	
	8081	0.3"	Lug (T)	0.8	I _k = 3.6	1400	80	Low-Level AF Amplifier	-----	
	8083	0.3"	Lug (T)	1.0	I _k = 10	10500	94	Low-Noise VHF Amp.	500 mc	
	Y-1032	0.3"	Coax.	0.6	I _k = 10	10000	36	Low- μ , Low Plate Voltage Osc., Amp., or Mult.	3000 mc	
	Z-2354	1.0"	Lug	12	I _k = 100	4300	8	Servo Power Amp.	-----	
	Z-2835	0.5"	Coax.	5.5	I _k = 30	16500	90	UHF Amp.	3000 mc	
	Triode - Class B or C Operation	2C39B	1.3"	Coax.	100Δ	I _k = 125	24800	95	UHF Power Amp., Osc., or Freq. Mult.	2500 mc
		2C40A*	1.3"	Octal	6.5Δ	I _b = 25	5100	35	UHF Power Amp., or Osc.	3000 mc
		2C43*	1.3"	Octal	12Δ	I _b = 40	8100	50	UHF Power Amp., or Osc.	3000 mc
3CX100A5		1.3"	Coax.	100Δ	I _k = 125	25000	100	UHF Power Amp., Osc., or Freq. Mult.	3000 mc	
6442		0.5"	Coax.	8.0Δ	I _b = 35	16500	50	UHF Power Amp., Osc., or Freq. Mult.	5000 mc	
6771		0.5"	Coax.	6.25Δ	I _b = 25	23000	90	UHF Power Amp., Osc., or Freq. Mult.	6000 mc	
6897		1.3"	Coax.	100Δ	I _k = 125	24800	95	UHF Power Amp., Osc., or Freq. Mult.	3000 mc	
7289		1.0"	Coax.	100Δ	I _k = 125	25000	100	UHF Power Amp., Osc., or Freq. Mult.	3000 mc	
7296		0.5"	Lug (T)	5.5	I _k = 30	16500	90	VHF Power Amp., Osc., or Freq. Mult.	500 mc	
7391		0.5"	Coax.	2.25Δ	I _b = 15	11000	62	UHF Power Amp., Osc., or Freq. Mult.	6000 mc	
7486		0.3"	Coax.	1.0	I _k = 10	10500	90	UHF Power Amp., Osc., or Freq. Mult.	3000 mc	
7720		0.3"	Lug	1.0	I _k = 10	10500	90	VHF Power Amp., Osc., or Freq. Mult.	500 mc	
7913		0.5"	Coax.	5.5	I _k = 30	40000	100	UHF Power Amp., Osc., or Freq. Mult.	3000 mc	
8082		0.3"	Lug (T)	1.0	I _k = 11	10500	90	VHF Power Amp., Osc., or Freq. Mult.	500 mc	
A-0897		1.0"	Coax.	7.0Δ	I _k = 100	24800	95	UHF Power Amp., Osc., or Freq. Mult.	3000 mc	
Y-1223		0.5"	Coax.	30.0	I _k = 100	40000	100	UHF Power Amp., Osc., or Freq. Mult.	3000 mc	
Y-1251		0.3"	Coax.	2.5	I _p = 20	13500	65	UHF Power Amp., Osc., or Freq. Mult.	6000 mc	
Y-1266		0.3"	Coax.	4.0	I _k = 40	8000	35	UHF Power Amp., Osc., or Freq. Mult.	3000 mc	
Z-2835		0.5"	Coax.	5.5	I _k = 30	16500	90	UHF Power Amp., Osc., or Freq. Mult.	3000 mc	
Z-5099A		1.6"	Coax.	100Δ	I _k = 125	24000	100	UHF Power Amp., Osc., or Freq. Mult.	3000 mc	
Z-5317	0.5"	Coax.	8.0Δ	I _b = 35	16500	50	UHF Power Amp., Osc., or Freq. Mult.	5000 mc		
Z-5387	1.2"	Coax.	10Δ	I _k = 125	24800	95	UHF Power Amp., Osc., or Freq. Mult.	3000 mc		
Triode - Class B or C Operation	Z-5267	1.8"	Coax.	140Δ	I _k = 200	60000	60	UHF Power Amp., or Osc.	3000 mc	

* Class - Metal Lighthouse tube.
 ** The frequency listed is one at which significant application data are available or assumed, and does not necessarily represent an absolute frequency limit.

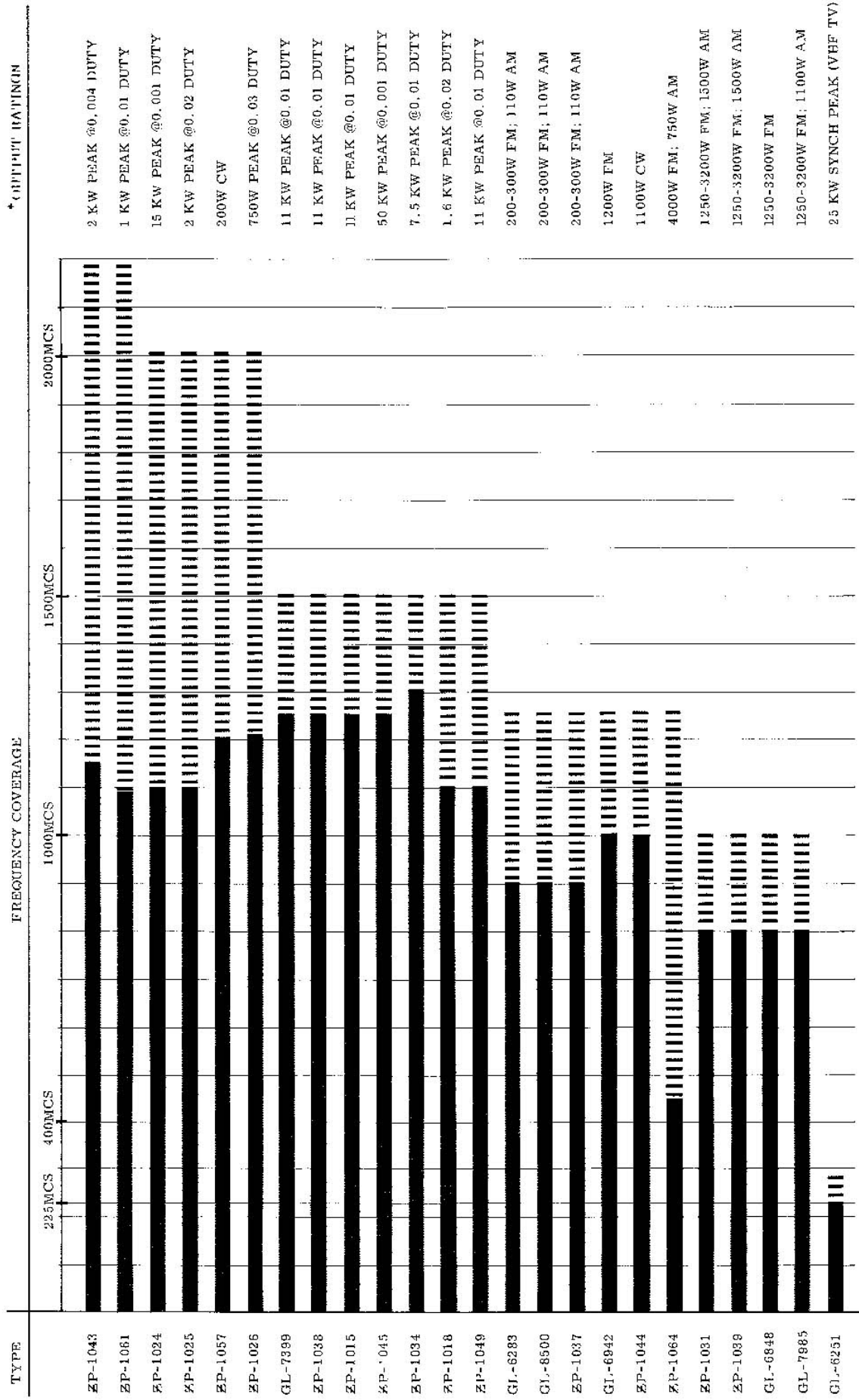
General Electric

CERAMIC TUBE SELECTION CHART

Classification	Type	Approx. Envelope Diameter	Type of Terminals	Plate Dissipation (Watts)	Maximum Ratings		G _m	u	Typical Application	Useful Frequencies Extend to **
					Current (milliamperes)	Current (milliamperes)				
Triode Pulse Operation	2C40A*	1.3"	Octal	4.0Δ	I _p = 2000	I _p = 2750	5100	35	Pulsed Osc. or Amp.	3000 mc
	2C43	1.3"	Octal	6.0Δ	I _p = 2500	I _g = 1250	8100	50	Pulsed Osc. or Amp.	3370 mc
	6442	0.5"	Coax.	7.5Δ	I _p = 1250	I _g = 700	16500	50	Pulsed Osc. or Amp.	6000 mc
	6771	0.5"	Coax.	5.0Δ	I _p = 3000	I _g = 1500	23000	90	Pulsed Osc. or Amp.	6000 mc
	7815	1.2"	Coax.	10.0Δ	I _p = 600	I _p = 2500	16000	75	Pulsed Osc. or Amp.	3000 mc
	7910	0.3"	Coax.	1.5	I _p = 400	I _g = 100	25000	58	Pulsed Osc. or Amp.	7500 mc
	7911	0.5"	Coax.	6.5	I _p = 2000	I _k = 3000	12000	75	Pulsed Osc. or Amp.	6000 mc
	Y-1124	0.3"	Coax.	2.6	I _p = 2000	I _k = 3000	27000	55	Pulsed Oscillator	6000 mc
	Y-1236	0.5"	Coax.	30.0Δ	I _p = 2000	I _k = 3000	24800	95	Pulsed Osc. or Amp.	6000 mc
	Z-5387	1"	Coax.	10.0						3000 mc
Diode Signal	2B22*	1.3"	Octal.	Tube Voltage Drop: 6.0 Volts @ I _b = 20 milliamperes I _b = 20 milliamperes maximum					Signal Detector	1500 mc
	7266	0.3"	Coax.	Tube Voltage Drop: 1 Volt @ I _b = 1.0 milliamperes I _b = 2 milliamperes maximum					Instrument Detector	3000 mc
	7841	0.3"	Coax.	Tube Voltage Drop: 2.6 Volts @ I _b = 5.0 milliamperes I _b = 5 milliamperes maximum					Signal Detector	3000 mc
	Y-1012	0.3"	Lug (T)	Tube Voltage Drop: 2.6 Volts @ I _b = 5.0 milliamperes I _b = 5 milliamperes maximum					Signal Detector	1500 mc
Diode Power	Z-2689	0.5"	Lug (T)	Tube Voltage Drop: 18 Volts @ I _b = 40 milliamperes I _b = 25 milliamperes maximum					Low Current Power Rectifier	-----
	Z-2731	1"	Lug (T)	Tube Voltage Drop: 20 Volts @ I _b = 120 milliamperes I _b = 70 milliamperes maximum					Power Rectifier	-----
Diode Cold-Cathode	Z-2692	0.5"	Lug (T)	Tube Voltage Drop: 88 Volts @ I _b = 5 milliamperes I _b = 1 milliampere minimum 10 milliamperes maximum					Voltage Reference	-----

* Glass - Metal lighthouse tube.
 ** The frequency listed is one at which significant application data are available or expected, and does not necessarily represent an absolute frequency limit.
 (T) Provision is made for mounting with T-bolt.
 Δ At this dissipation level, anode cooling is usually necessary to prevent

Power-Frequency Chart for Metal-Ceramic Triodes & Tetrodes



* OUTPUT RATINGS

* RATINGS DO NOT INDICATE COMPLETE TUBE CAPABILITY. FOR PARTICULAR APPLICATION REQUIREMENTS REFER TO TUBE MANUFACTURER

CODE
 ██████████ MAXIMUM RATINGS AND/OR TYPICAL OPERATION
 ||||| ESTIMATED OR DEMONSTRATED CAPABILITY