



ELECTRONIC TUBE REFERENCE

3RM215G

Power - Triode (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

High-power indirectly heated triode. Available source material does not establish a narrower functional application confidently.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	12.5 V / 12 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
TRANSCONDUCTANCE	0.04 S
AMPLIFICATION FACTOR	42
MAXIMUM PLATE VOLTAGE	6500 V
MAXIMUM PLATE DISSIPATION	8000 W
MAXIMUM CATHODE CURRENT	24 A
<i>Published maximum ratings and characteristics audited; remaining values retained densely in parameter table.</i>	

The 3RM215G is a magnetically beamed industrial triode using a permanent magnet to guide electron flow and a solid gate electrode for RF amplifiers, oscillators, and industrial RF heating.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 ITT

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1962 ITT

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
(approximately	30 W	(approximately 30dB), and the driving power required for full output is
is well within the tube rating at anode voltages up to	4 kV	is well within the tube rating at anode voltages up to 4kV,
Heater voltage	125 V	Heater voltage 12,5 Vv
Heater current	12 A	Heater current 12 A
Mutual conductance	40 mA/V	Mutual conductance 40 mA/V
Gete to anode	55	Gete to anode 55 pF
Gate to cathode	63	Gate to cathode 63 pF
Anode to cathode (gate earthed)	68	Anode to cathode (gate earthed) 6,8 pF
For en anode dissipation of [1]	10 kW	For en anode dissipation of 10kW, a water flow of 1,5 gal/min
For en anode dissipation of [2]	15 kW	For en anode dissipation of 10kW, a water flow of 1,5 gal/min
Maximum pesk cathode current	24 mA	Maximum pesk cathode current 24 A
Maximum direct anode current	55 mA	Maximum direct anode current 5,5 A
Maximum direct anode dissipation (continuous)	8 kW	Maximum direct anode dissipation (continuous) 8 kW
Maximum direct gate voltage ~	-750 V	Maximum direct gate voltage ~-750 v
Direct anode voltage* [1]	60 kV	Direct anode voltage* 6,0 6,0 kV
Direct anode voltage* [2]	60 kV	Direct anode voltage* 6,0 6,0 kV
Direct gate voltage =	500 V	Direct gate voltage =500 v
Direct anode current [1]	52 A	Direct anode current 5,2 2,7 A

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Direct anode current [2]	27 A	Direct anode current 5,2 2,7 A
Peak r.f. gate voltage	870 V	Peak r.f. gate voltage 870 Vv
Gate dissipation [1]	587 W	Gate dissipation 58,7 6 W
Gate dissipation [2]	6 W	Gate dissipation 58,7 6 W
Power input [1]	312 kW	Power input 31,2 16,2 kW
Power input [2]	162 kW	Power input 31,2 16,2 kW
Anode dissipation [1]	80 kW	Anode dissipation 8,0 3,2 kW
Anode dissipation [2]	32 kW	Anode dissipation 8,0 3,2 kW
Power into load at	90 W	Power into load at 90%
transfer efficiency [1]	209	transfer efficiency 20,9 11,7 kW
transfer efficiency [2]	117	transfer efficiency 20,9 11,7 kW
Fig	1 V	Fig. 1. Typical Anode Current and Gate Current versus Anode Voltage
pd #+	400 kV	pd #+400V ANODE VOLTAGE (kV)
Fig	2 A	Fig. 2. Typical Constant Current Characteristics
P2	17 A	P217 — Gate current (A)
Fig	3 V	Fig. 3. Typical Anode Current versus Gate Voltage
D anode F [1]	794	D anode F 794 5/16
D anode F [2]	5	D anode F 794 5/16
D anode F [3]	16	D anode F 794 5/16

TUBE TINKER

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