

ELECTRONIC TUBE REFERENCE

CV6034

Specialized - Magnetron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
MAGNETRON

Packaged forced-air-cooled X-band pulsed magnetron covering about 9.50–9.59 GHz. It uses an indirectly heated cathode and waveguide output and is rated for peak RF output up to roughly 130 kW under documented operating conditions.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	2 V / 10.5 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Magnetron
No fixed ratings recorded. Promoted fields mapped semantically from printed ratings/characteristics headings. Fixed promoted fields are largely inapplicable to this special-purpose device; additional published data is retained in TUBE_SECTION_PARAMETER where text recovery permits.

Forced-air-cooled packaged X-band pulsed magnetron with indirectly heated cathode and waveguide output.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Magnetron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
CV6034 9500	9590 MHz	CV6034 9500 - 9590 Mc/s
CV6035 9555 ~	9645 MHz	CV6035 9555 ~ 9645 Mc/s
~ CV6036 9610	9700 MHz	~ CV6036 9610 - 9700 Mc/s
Vh	2 v	. Vh 2.0 v
For a mean anode input power greater than	50 W	For a mean anode input power greater than 50W the heater voltage must be
Vp=2 (- mean power input) £	0.2 V	Vp=2 (- mean power input) £0.2V
~ ia (pk)	20 A	~ ia (pk) 20.0 A
~ *Rate of rise of voltage (max)	250 kV	~ *Rate of rise of voltage (max) 250 kV/us
*Rate of rise of voltage (min)	100 kV	*Rate of rise of voltage (min) 100 kV/us
th, k (min)	3 minutes	th, k (min) 3.0 minutes
Pijp (mean)	360 w	Pijp (mean) 360 w
Pin (pk) (for tp = 0.25us)	360 kW	Pin (pk) (for tp = 0.25us) 360 kW
(for tp =1.0us)	200 kW	(for tp =1.0us) 200 kW
Tanode block (max)	150 degC	Tanode block (max) 150 °C
Tanode block (min)	-55 degC	Tanode block (min) -55 °C
~ Tcathode connector (max)	165 degC	~ Tcathode connector (max) 165 °C
Teathode connector (min)	-55 degC	Teathode connector (min) -55 °C
ia (pk) 20	12 A	ia (pk) 20 12 A
Va (pk) (2pprox) 17.2	16.7 kv	Va (pk) (2pprox) 17.2 16.7 kv
*Rate of rise of voltage 250	250 kV	*Rate of rise of voltage 250 250 kV/us
Pout (pk) 130	75 kW	Pout (pk) 130 75 kW

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minor lobes -12	-10 dB	Minor lobes -12 -10 dB
Pushing figure 0.2	0.2 MHz	Pushing figure 0.2 0.2 Mec/s(A) TM *

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pulling figure (max) (VSWR = 1.5 : 1)	15 MHz	Pulling figure (max) (VSWR = 1.5 : 1) 15 Mec/s
Ch,k-a	12 pF	Ch,k-a 12 pF