TETRODE THYRATRON

Tetrode, mercury vapour thyratron with negative control characteristic. Primarily designed for motor control and other industrial applications.

XGQ2-6400

(MT105)

This data sheet should be read in conjunction with DEFINITIONS AND OPERATIONAL RECOMMENDATIONS—THYRATRONS, which precede this section of the handbook.

LIMITING VALUES (absolute ratings, not design centre)

It is important that these limits are never exceeded and such variations as mains fluctuations, component tolerances and switching surges must be taken into consideration in arriving at actual valve operating conditions.

Max. peak anode voltage		
Inverse	2.5	kV
Forward	2.5	kV
Max. cathode current		
Peak (25 c/s and above)	40	A
Peak (below 25 c/s)	12.8	A
Average (max. averaging time 15s)	6.4	A
Surge (fault protection max. duration 0.1s)	400	A
Max. negative control-grid voltage		
Before conduction	1.0	kV
During conduction	10	V
Max. average positive control-grid current for anode voltage more positive than −10V (averaging time 15s)	250	mA
Max. peak positive control-grid current during the time that the anode voltage is more positive than −10V	1.0	A
Max. control-grid resistor (Recommended min. control-grid resistor 10kΩ)	100	kΩ
Max. negative shield-grid voltage		
Before conduction	500	V
During conduction	10	V
Max. average positive shield-grid current for anode voltage more positive than −10V (averaging time 15s)	500	mA
Max. peak positive shield-grid current during the time that the anode-voltage is more positive than −10V	2.0	A
Max. shield-grid resistor	10	kΩ
Heater voltage limits	4.75 to 5.25	V
Min. cathode heating time	5.0	min
Condensed mercury temperature limits	40 to 80	°C

PRELIMINARY

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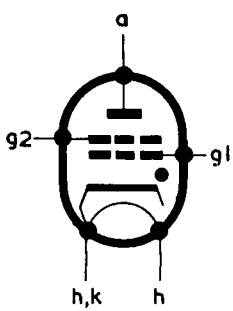
CHARACTERISTICS

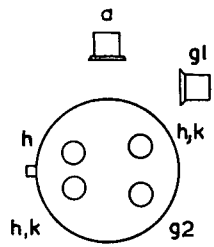
Electrical

Heater voltage	5.0	V
Average heater current at 5.0V	10	A
Anode to control-grid capacitance	2.0	pF
Deionisation time (approx.)	1000	µs
Ionisation time (approx.)	10	µs
Anode voltage drop	16	V

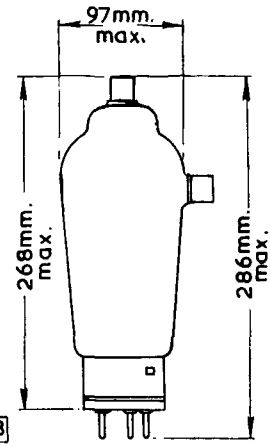
Mechanical

Type of cooling	Convection	
Mounting position	Vertical, base down	
Max. net weight	17	oz
	500	g





B4D BASE



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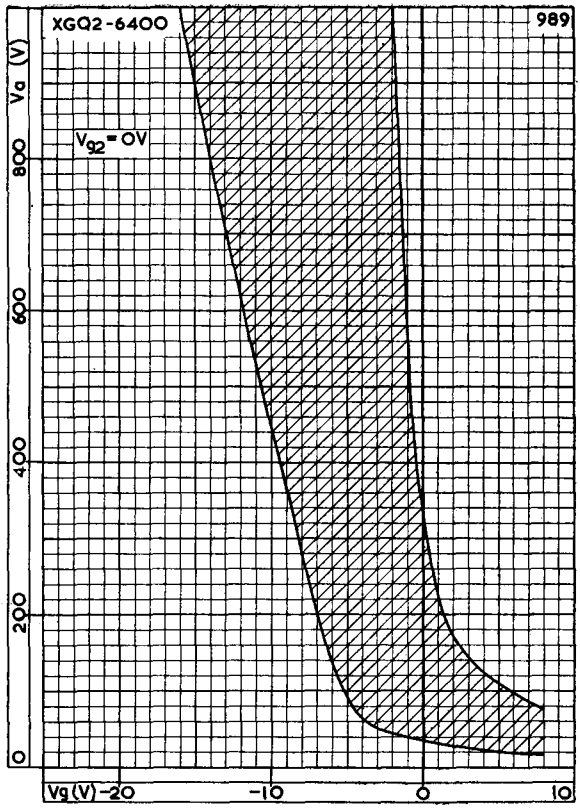

CONTROL CHARACTERISTIC