

This vapour-cooled triode is designed for use as an r.f. power amplifier or oscillator and is suitable for cathode drive operation.

MAXIMUM RATINGS

Direct anode voltage (Note 1)	14	kV
Direct anode current	18	A
Anode dissipation	125	kW
Grid dissipation	2,75	kW
Maximum operating frequency for above ratings	27	MHz

Note 1. For Class C anode modulated operation (100% carrier modulation) the maximum anode voltage is 12kV.

TYPICAL OPERATING CONDITIONS

Class C. R.F. Power Amplifier or Oscillator

Filament voltage, per filament section	9,6	V
Filament current, nominal, per filament section	290	A
Direct anode voltage	14	kV
Direct grid voltage	-765	V
Peak r.f. grid voltage	1 305	V
Anode current	17,5	A
Grid current, approx.	3,1	A
Anode dissipation	45	kW
Grid dissipation, approx.	1,7	kW
Drive power, approx.	4,0	kW
Output power	200	kW
Efficiency	81	%

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COMPONENTS

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CATHODE

Thoriated tungsten filament (Note 2)

Filament voltage, per section		9,6V \pm 5%	
Filament current, per section, at 9,6V	min. 263	max. 311	A
Maximum difference between current in each section		15	A
Filament cold resistance, per section		0,004	Ω
Maximum filament starting current, per section (Note 3)		700	A
Maximum usable emission		175	A

Note 2. The filament consists of two sections. Each section is connected across diagonally opposite pairs of filament terminals. The two filament sections should be operated in phase quadrature.

Note 3. This starting current must not be exceeded even momentarily.

CHARACTERISTICS

Amplification factor (at $V_a = 9,0kV$: $I_a = 5,0A$)	min. 31	max. 39	
Mutual conductance (at $V_a = 9,0kV$: $I_a = 5,0A$)	min. 78	max. 102	mA/V

DIRECT INTERELECTRODE CAPACITANCES

Grid to anode	108	pF
Grid to filament	259	pF
Anode to filament	3,5	pF

COOLING

The anode, which is fitted into an approved type of boiler, is cooled by the evaporation of water. The resulting steam is condensed by either an internal or an external condenser.

The anode seal and bulb temperatures must not exceed 180°C.

To give protection against overheating of the anode, a thermal fuse is fitted in one of four possible positions provided by threaded holes equally spaced around the top surface of the anode ring. The fuse is screwed into position and connected by a non-conducting cord to a suitable switching device. A cord tension of 1 lb (450 g) will ensure that if the anode temperature exceeds the safe limit, the fuse core is pulled out and the safety switch removes all electrical supplies from the tube.

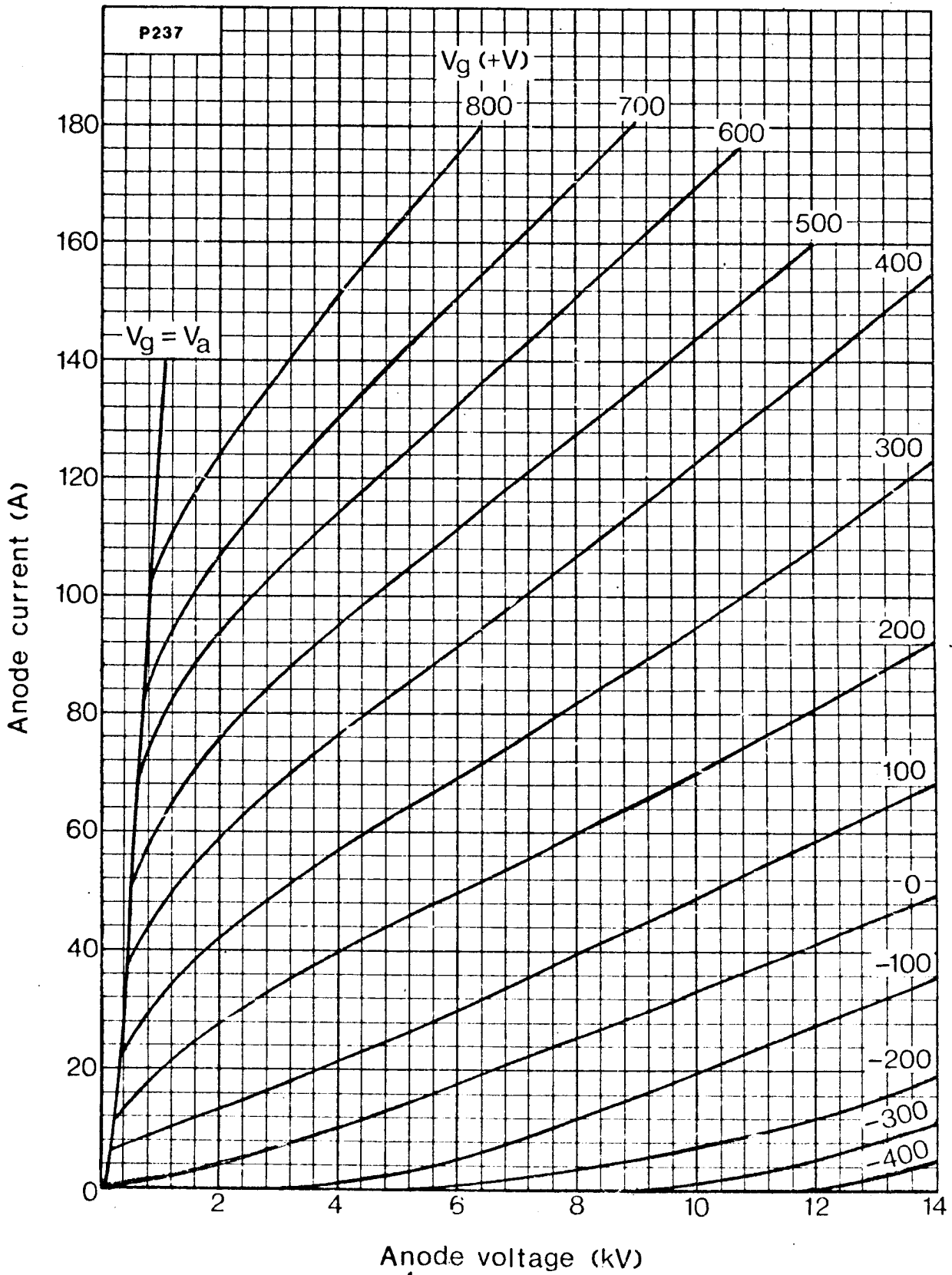
The filament and grid seals are cooled by forced-air. Normally an air flow of 60 ft³/min (1,7 m³/min) directed into the filament header from a 2 inch (50 mm) diameter orifice is sufficient for the purpose.

The maximum temperature of the filament and grid seals must not exceed 140°C.

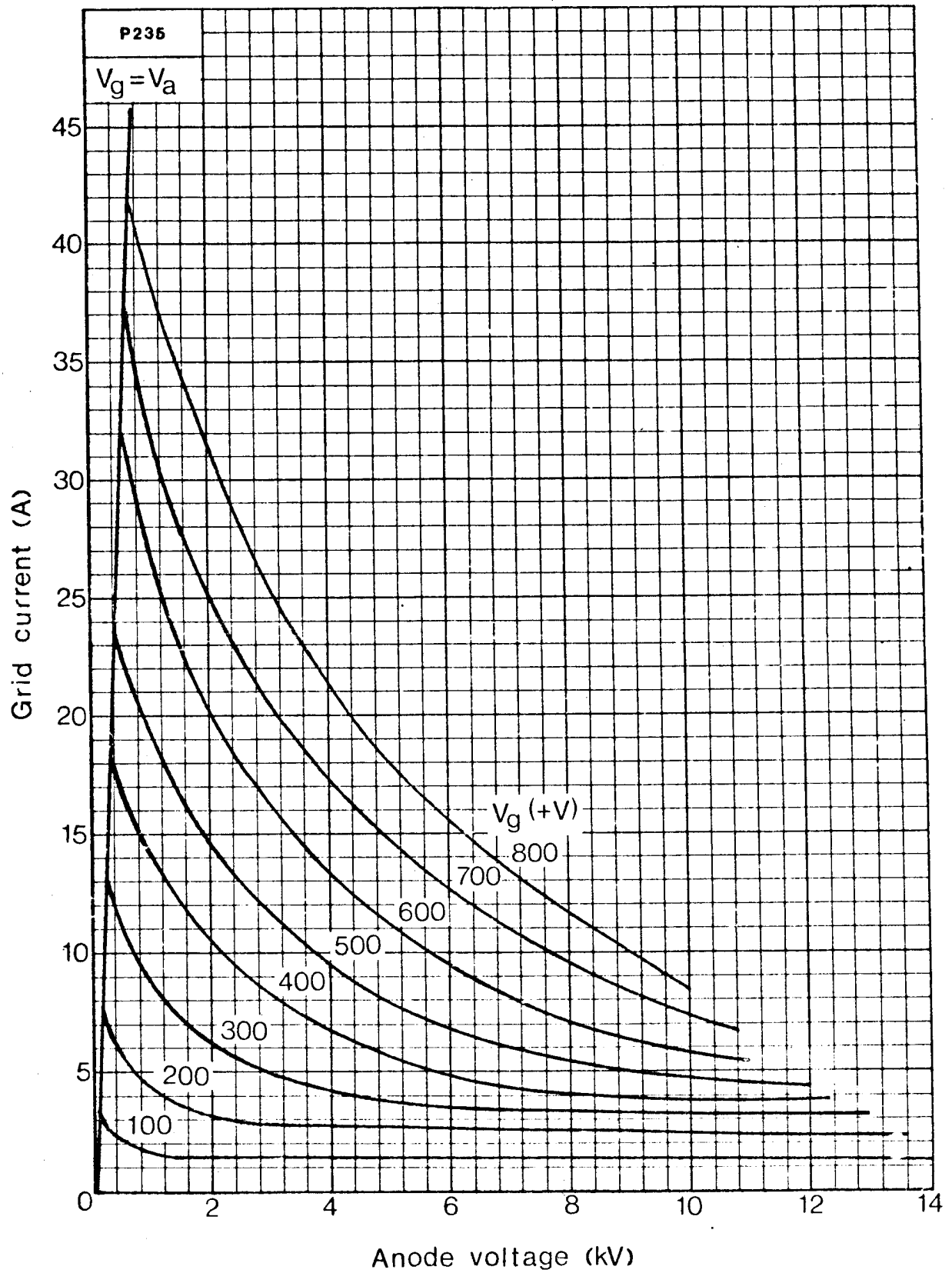
MECHANICAL DATA

Dimensions	As shown in outline drawing included
Mounting position	Vertical, anode downwards
Net weight	125 lb (57 kg)
Accessories	
Boiler unit	} The tube manufacturer should be consulted as to types required for specific applications
Condenser	
Sealing ring	Type PSL024 supplied with tube
Thermal fuse	Type RSW011A, two supplied with tube
Tube lifting equipment	The tube should be lifted by four lifting hooks applied to the underside of the anode corona ring; the hooks being connected by suitable cables to a spreader plate and lifting tackle.

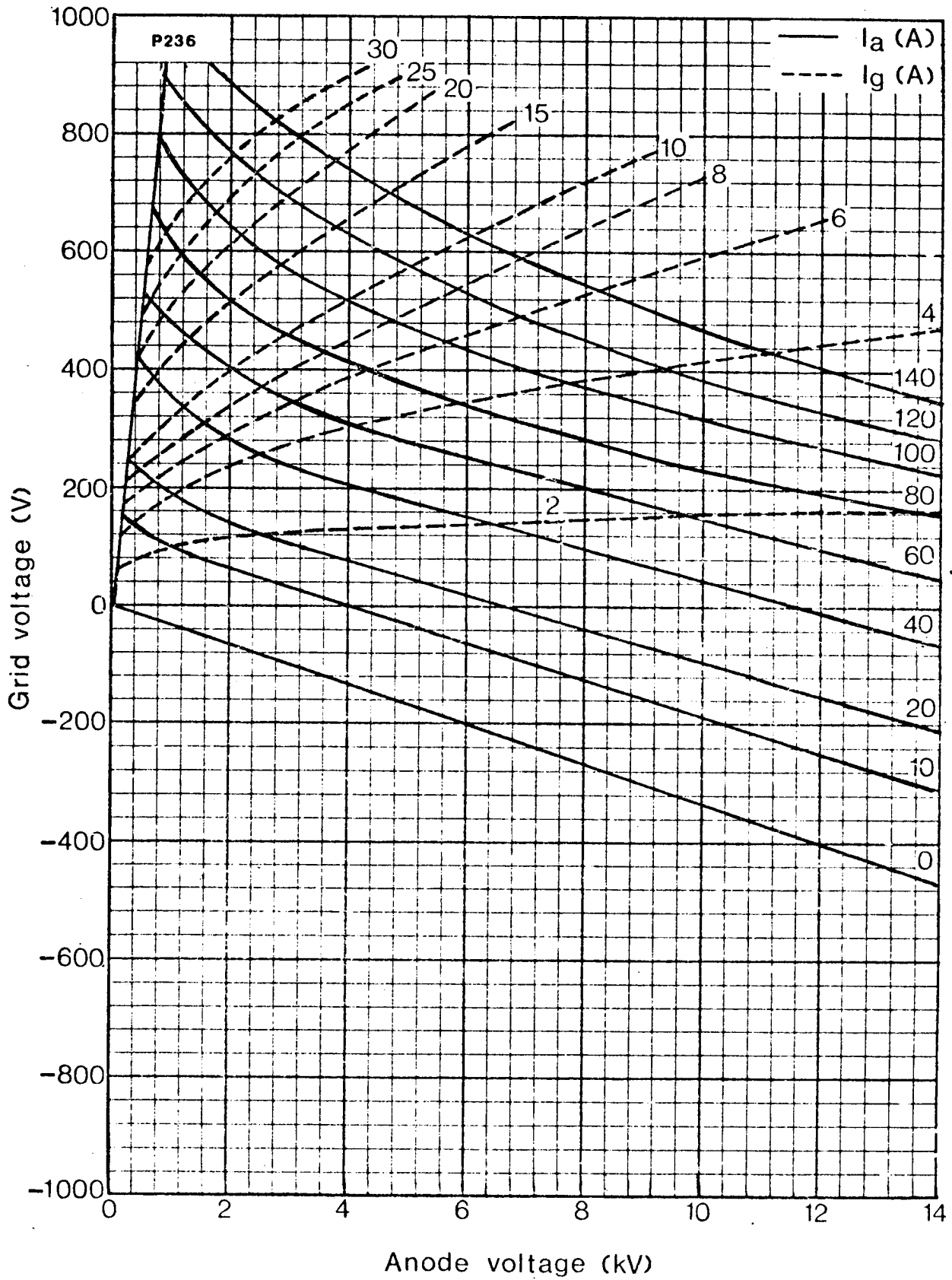
Anode Characteristics



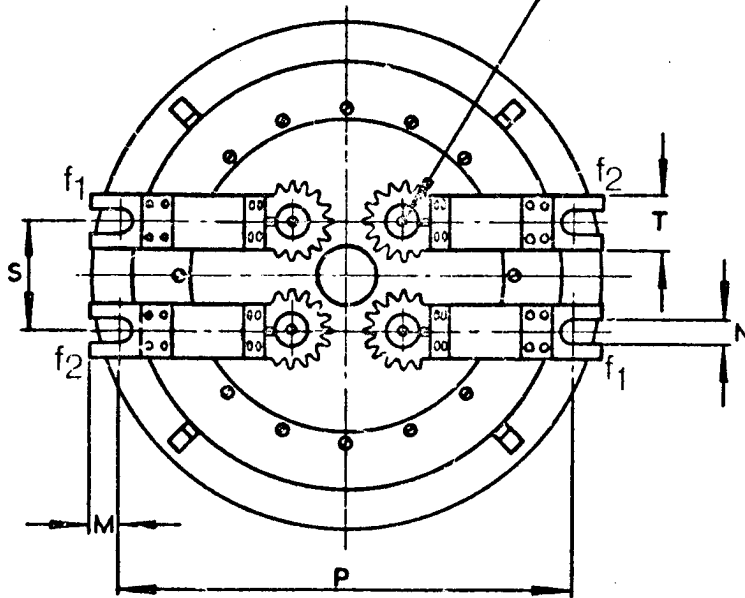
Grid Characteristics



Constant Current Characteristics



3Z/340G Outline
4-filament posts
H dia. on J p.c.d.



dim.	mm	in
A	332 max.	13.06 max.
B	256,8 ± 6,4	10.11 ± .25
C	610 max.	24.0 max.
D	351 max.	13.8 max.
E	259 max.	10.187 max.
F	6,35 ± 0,76	.25 ± .03
G	50,8	2.0
H	22,23 ± 0,13	.875 ± .005
J	101,6	4.0
K	274,64 ± 0,38	10.812 ± .015
L	236,53 ± 0,38	9.312 ± .015
M	19,0	.75
N	14,27	.562
P	296,85	11.687
Q	152	6.0
R	3,18	.125
S	71,83	2.828
T	31,75	1.25
U	228,6 max.	9.00 max.

Metric dimensions derived from original inch dimensions

