BD12

MERCURY VAPOUR RECTIFIER

To be read in conjunction with the Rectifier and Thyratron Preamble.

DESCRIPTION

Hot cathode full-wave mercury vapour rectifier.

GENERAL DATA

Electrical

Cathode	indirectly heated	
Heater voltage	5.0	V
Heater current	35	A
Cathode pre-heating time (minimum)	5.0	min
Voltage drop (approx)	12	V
Condensed mercury temperature rise above ambient (approx):		
at no load	52	°C
at full load	60	°C

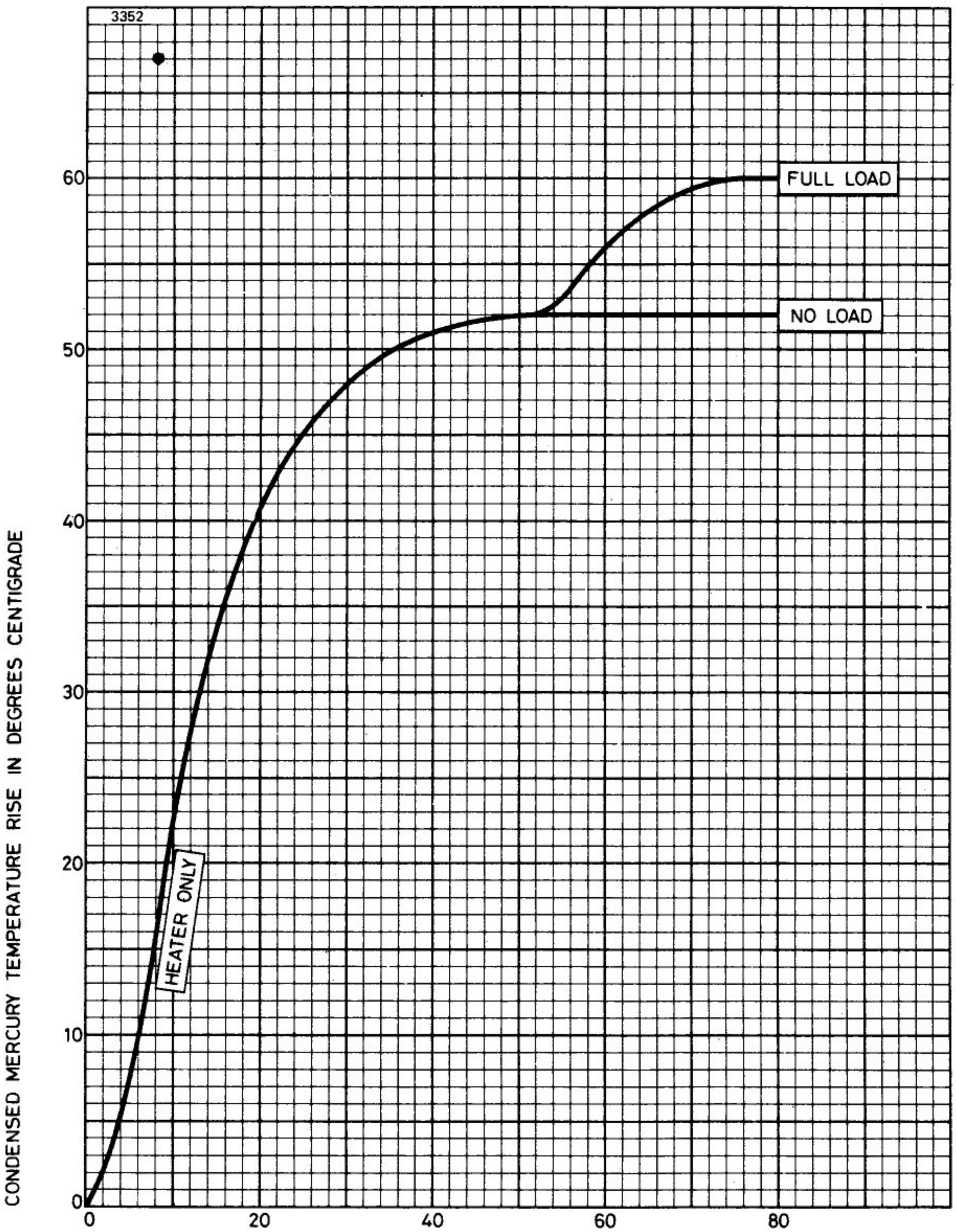
Mechanical

Overall length (excluding leads)	16.437 inches (417.5mm) max
Overall diameter	6.437 inches (163.5mm) max
Net weight	3½ pounds (1.6kg) approx
Mounting position	vertical, base down
Connections	flexible leads

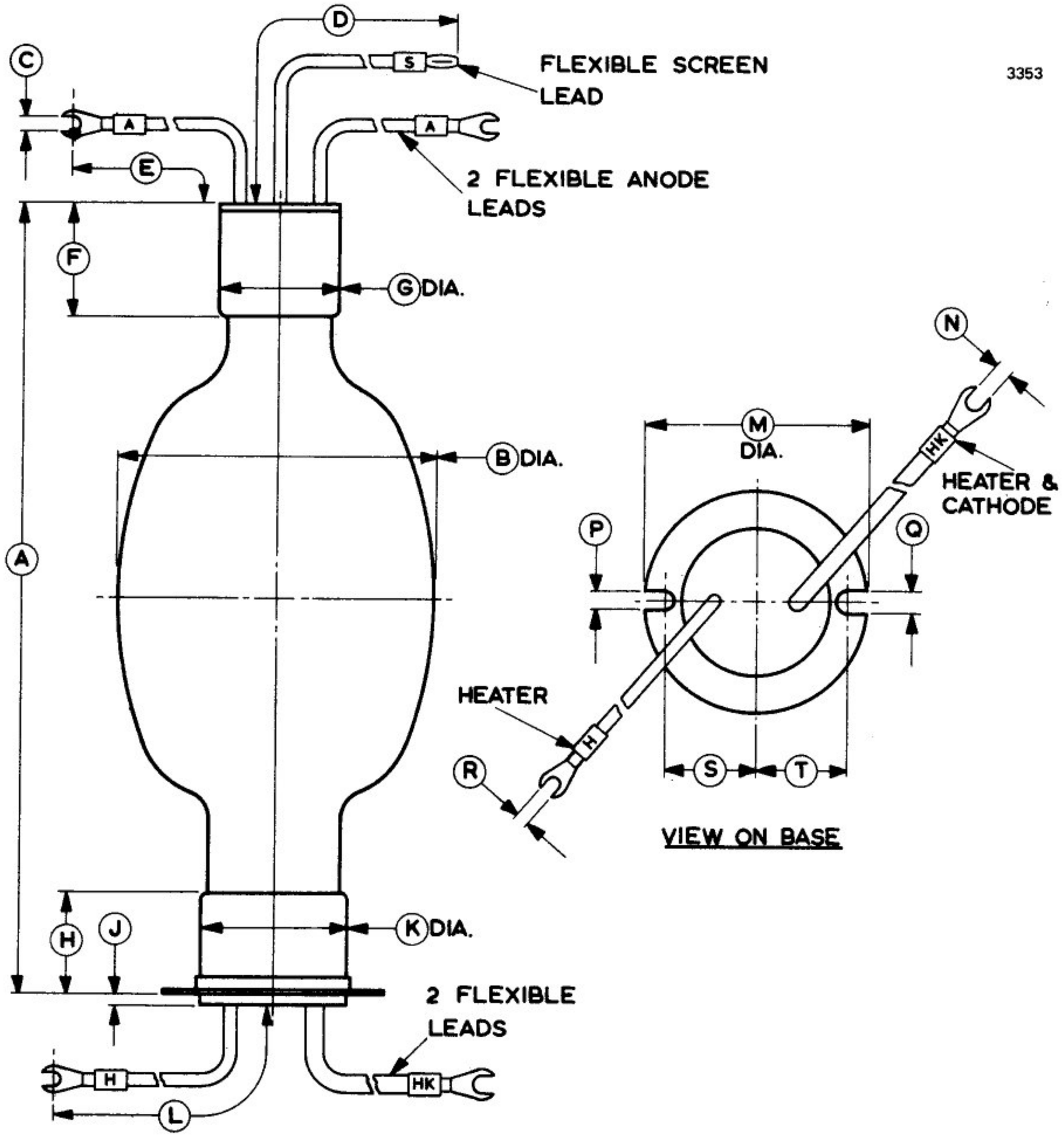
MAXIMUM AND MINIMUM RATINGS (Absolute values)

Peak inverse anode voltage	1.0	kV max
R.M.S. voltage between anodes	250	V max
Peak anode current (per anode)	50	A max
Mean anode current (per anode) (averaging time 30s max)	16.5	A max
Surge anode current (per anode) (0.1s maximum duration)	500	A max
Condensed mercury temperature (on load)	40	°C min
	100	°C max

TYPICAL HEATING CHARACTERISTIC



OUTLINE (All dimensions without limits are nominal)



Ref	Inches	Millimetres	Ref	Inches	Millimetres
A	15.625 ± 0.500	396.9 ± 12.7	K	2.875 max	73.03 max
B	6.437 max	163.5 max	L	7.750 ± 0.250	196.9 ± 6.4
C	0.265	6.73	M	4.375 max	111.1 max
D	6.250 ± 0.250	158.8 ± 6.4	N	0.328	8.33
E	7.750 ± 0.250	196.9 ± 6.4	P	0.344	8.74
F	2.250	57.15	Q	0.437	11.10
G	2.875 max	73.03 max	R	0.265	6.73
H	2.000	50.80	S	1.813	46.05
J	0.250 ± 0.062	6.35 ± 1.57	T	1.813	46.05

Millimetre dimensions have been derived from inches.