C1158
(7972)

POWER TETRODE

Service Type CV6045

The data should be read in conjunction with the Power Tetrode Preamble.

DESCRIPTION

The C1158 is a low impedance beam tetrode intended for use in d.c. control equipment. It may be triode connected and is suitable for pulse operation.

GENERAL DATA

Electrical

Cathode	indirectly heated, oxide coated		
	Parallel	**Series**	
Heater voltage	13	26	V
Heater current	2.6	1.3	A
Mutual conductance (triode connected) (V_a = 150V, I_a = 0.5A)	35		mA/V
Amplification factor (triode connected) (V_a = 150V, I_a = 0.5A)	4.5		
Anode resistance (triode connected) (V_a = 150V, I_a = 0.5A)	130		Ω
Inter-electrode capacitances:			
grid to anode	1.3		pF
input	56		pF
output	20.4		pF

Mechanical

Overall length	5.395 inches (137mm) max
Overall diameter	2.560 inches (65mm) nom
Net weight	6 ounces (170g) approx
Base	B.S.448-B7A
Mounting position	vertical

COOLING

Natural cooling is normally adequate but the bulb and base temperatures must not exceed the values given below

Bulb temperature	200	°C
Base temperature	150	°C

MAXIMUM RATINGS (Absolute values)

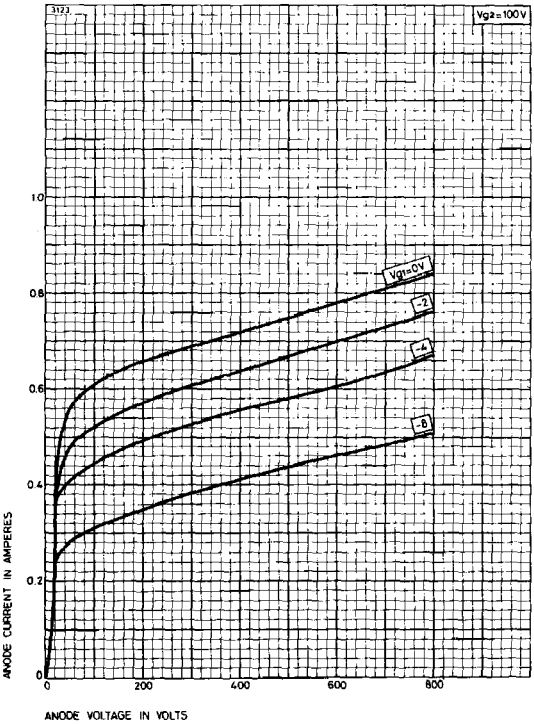
D.C. Ratings

Anode voltage	800	V max
Anode dissipation	90	W max
Anode and screen dissipation (triode connected)	95	W max
Screen voltage	300	V max
Screen dissipation	10	W max
Grid voltage (negative)	100	V max
Grid dissipation	1.0	W max
Cathode current	800	mA max
Heater to cathode voltage (heater negative)	300	V max

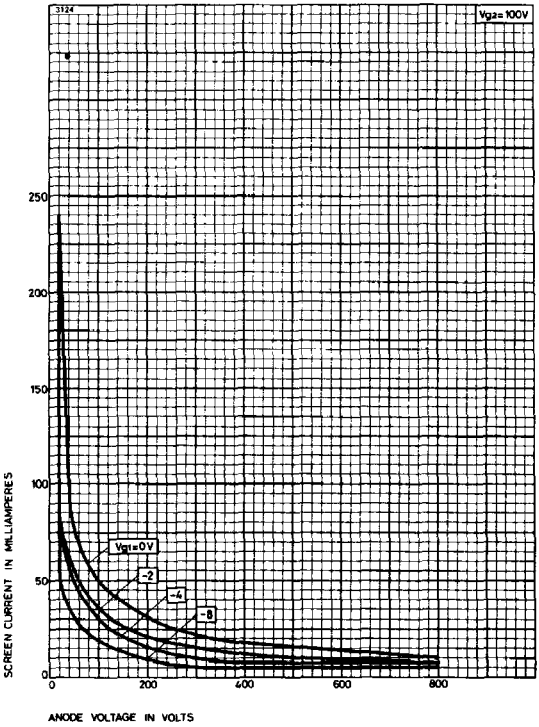
Pulse Ratings

Anode voltage (peak)	1500	V max
Cathode current (peak)	5.0	A max
Duty cycle (averaging time 100μs)	0.05	max
Product of peak current and pulse length (for peak currents exceeding 2.0A)	10	A.μs max

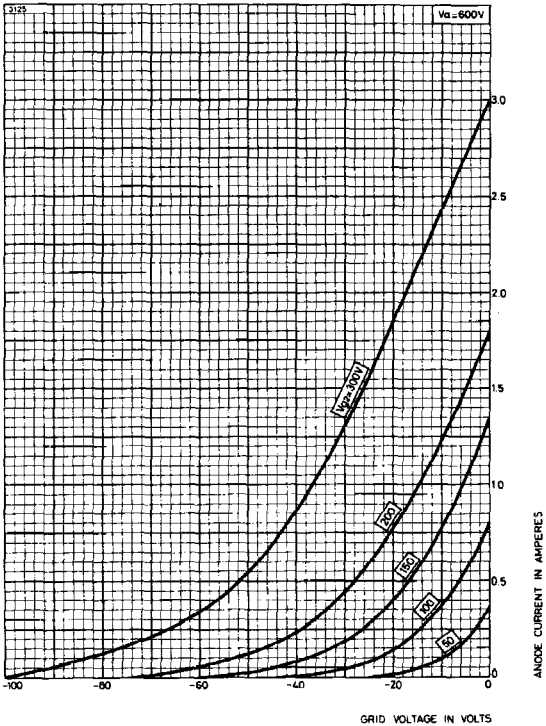
TYPICAL ANODE CURRENT – ANODE VOLTAGE CHARACTERISTICS



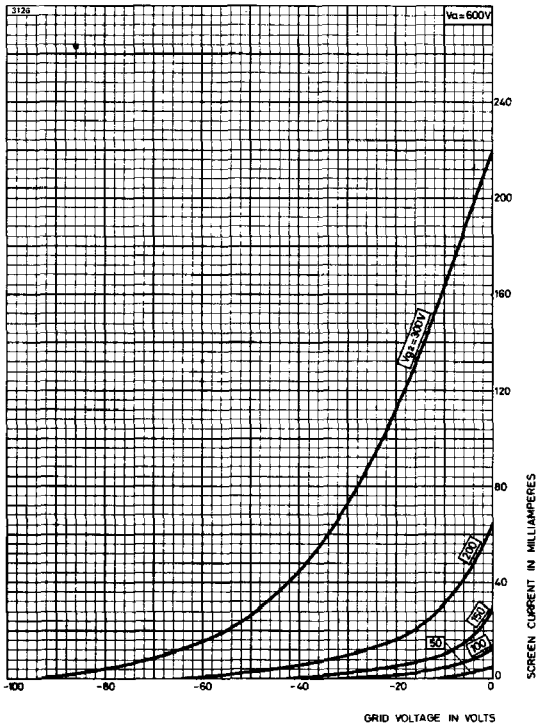
TYPICAL SCREEN CURRENT – ANODE VOLTAGE CHARACTERISTICS



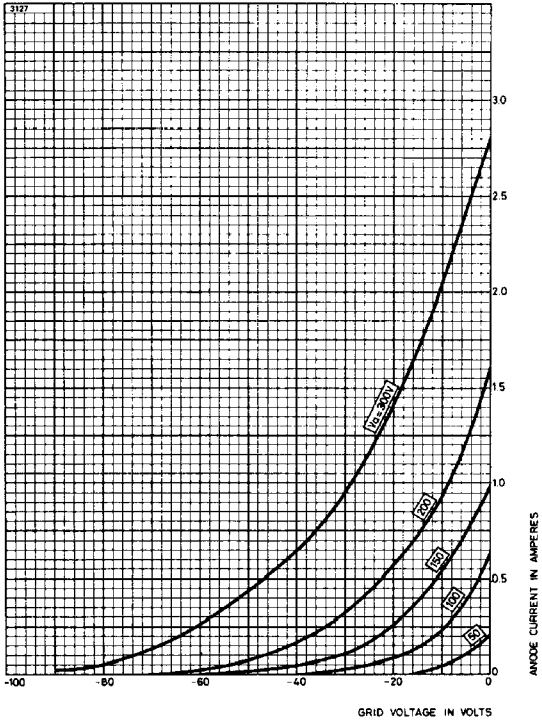
TYPICAL ANODE CURRENT – GRID VOLTAGE CHARACTERISTICS



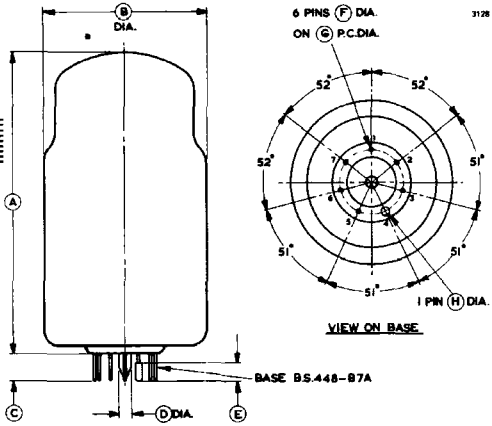
TYPICAL SCREEN CURRENT – GRID VOLTAGE CHARACTERISTICS



TYPICAL TRIODE CHARACTERISTICS



OUTLINE (All dimensions without limits are nominal)



Ref	Inches	Millimetres
A*	4.724	120.0
B*	2.560	65.00
C	0.437 ± 0.062	11.10 ± 1.58
D	0.276 max	7.01 max
E	0.312	7.93
F	0.060	1.52
G	1.000	25.40
H	0.125	3.18

Millimetre dimensions have been derived from inches except where indicated thus *.

Pin	Element
1	Heater
2	Heater centre tap
3	Grid
4	Cathode
5	Screen
6	Anode
7	Heater