



**HIGH SLOPE
TRIODE**

BRIEF DATA

The 5842 is a long life, low noise triode with a slope of 25 mA/V, designed for grounded-grid use in wideband amplifiers. The 5842 is a commercial version of the CV3789. This valve was originally the 417A.

HEATER

Heater voltage	6.3	V
Heater current (approx)	0.3	A

MAXIMUM RATINGS (Absolute)

DC anode voltage	250	V
Negative grid voltage	20	V
Anode dissipation	4	W
DC cathode current	35	mA
Heater-cathode voltage	150	V
Grid-cathode resistor (cathode bias)	270	kΩ
Bulb temperature	180	°C

CAPACITANCES (Measured on a cold unshielded valve)

Anode to grid	1.8	pF
Anode to heater+cathode (max)	0.42	pF
Grid to heater+cathode	6.5	pF

CHARACTERISTICS

DC anode voltage	150	V
Negative dc grid voltage (approx)	1.5	V
DC anode current	25	mA
Mutual conductance	25	mA/V
Amplification factor	43	

TYPICAL OPERATION

Class A Grounded Grid Small Signal Amplifier

DC anode voltage	130	150	V
Grid bias voltage	+9	0	V
DC anode current	27	25	mA
Cathode bias resistor	360	60	Ω
Internal anode resistance	1.6	1.7	k Ω
Mutual conductance	27	25	mA/V
Equivalent noise resistance	—	150	Ω
Noise factor (at 45 MHz)	—	2.0	dB

LIFE PERFORMANCE

The average life expectancy of the 5842 is at least 10,000 hours. In order to obtain maximum life the valve must be operated within the ratings given on page 1. The environment must be a static one and the valve should be switched not more than 12 times in each 24 hours.

A valve is considered to have reached the end of life when it is either inoperative or one or more of its characteristics have reached the following values:-

*DC anode current	< 13	mA
*Mutual conductance	< 13	mA/V
†Negative grid current	> 2	μ A

*Measured at:

DC anode voltage	150	V
Grid bias voltage	0	V
Cathode bias resistance	60	Ω

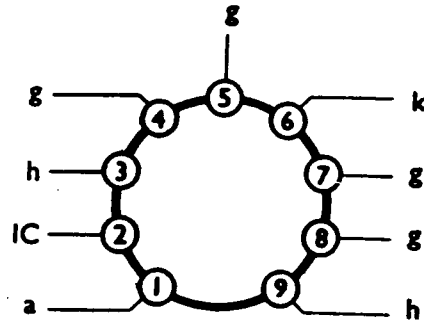
†Measured at:

DC anode voltage	150	V
Negative dc grid voltage	1	V

INSTALLATION

The valve may be mounted in any position. The use of a retaining can, blackened inside and out, is recommended.

BASE CONNECTIONS AND VALVE DIMENSIONS



View from underside of base.

Base : Noval (B9A)
Bulb : Tubular
Max overall length : 45 mm
Max seated length : 38 mm
Max diameter : 22.2 mm

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