

FLASH TUBE

LSD2

Micro-second Flash Tube for
high-speed photography.

MULLARD LSD2

GENERAL

The LSD2 is a cold cathode gas-filled discharge tube giving a high intensity luminous flash of extremely short duration suitable for high speed photography. It is intended for single flash operation at intervals of not less than 1 minute. The effective duration of the photographic flash is of the order of 1 micro-second, the exact duration being ultimately determined by the self-inductance of the discharge capacitor and its associated leads. This inductance should, therefore, be kept as low as possible.

LIMITING VALUES

Maximum energy dissipation within tube	35 joules
Effective duration of photographic flash	1 μ sec
Anode breakdown voltage	10,000 V
Minimum anode voltage	5,000 V
Recommended working anode voltage	7,500 V
Minimum peak trigger voltage (from spark-coil)	5,000 V

DISCHARGE CAPACITOR

Owing to the extremely high peak current associated with micro-second discharges, the losses in the capacitors and leads are such that it is unlikely that more than 60% of the capacitor energy will be dissipated in the flash tube. It is therefore permissible to use a 1 μ F capacitor at 10KV or a 2 μ F capacitor at 7.5KV corresponding to 50 joules and 56 joules respectively in the capacitor.

COLOUR OF DISCHARGE

Bluish white of high actinic value.

DELAY TIME

(a) Internal - from triggering impulse breakdown to production of luminous flash:-

at $V_a = 10,000$ V	1 μ sec
at $V_a = 7,500$ V	3 μ sec

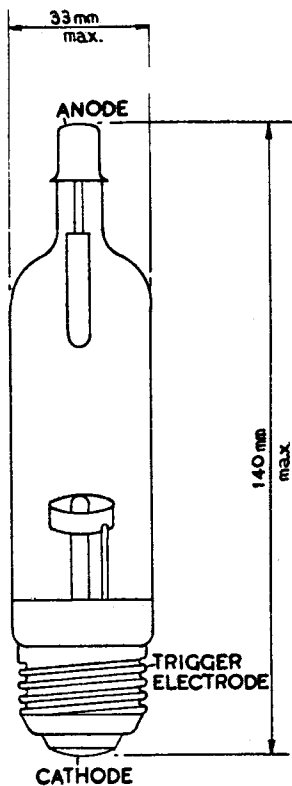
(b) External - dependent upon triggering circuit.



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CAP-STANDARD EDISON SCREW

