



LA86

2-ELECTRODE SPARK GAP

GENERAL INFORMATION AND APPLICATIONS

The LA86-series of 2-electrode spark gaps are high-pressure gas-discharge tubes, sealed in a ceramic-metal envelope. The tubes are intended for lightning protection of radio-electronic equipment. The design of the tubes is protected by Russian patent #108224 (priority 11/09/2009).

THE SWITCH DOES NOT CONTAIN ANY RADIOACTIVE, TOXIC HAZARDOUS SUBSTANCES.

PRODUCT SPECIFICATIONS

Specification	Unit	Maximum Value
DC breakdown voltage range (DCBV) ^(Note 1)	kV	5...50
Impulse ratio (8/20 us waveshape) ^(Note 2)	-	<1.5
Breakdown voltage tolerance within the lifetime	%	<15
Peak current (8/20 μs) ^(Notes 3,4)	kA	200
Pulse duration (0.1)	μs	60
Insulation Resistance	MΩ	> 100
Operating temperatures	°C	-60 ... +150
Net weight	g	200

Important! All ratings given in this data sheet are absolute, non-simultaneous ratings. It is the equipment designer's responsibility to ensure that they are not exceeded. The spark gap life depends on circuit conditions such as peak discharge current and duration, charge transfer per discharge and the repetition rate.

NOTES

- 1) LA86 is a trade mark for the line of spark gaps with different DC Breakdown Voltages (DCBV). Parts with different DCBV ratings are available on order. At that in case when DCBV=21 kV the spark gap is signified as LA86-21. If DC voltage exceeds 35 kV it is recommended to immerse the tube into insulating media (transformer oil, SF6).
- 2) Impulse ratio is measured at pulse voltage with rise rate of 15 kV/μs = 3 max @ 1.0 kV; less than 1.5 @ > 10.0 kV dc.
- 3) Current pulse waveform - damped sinusoid with the second half-wave amplitude not more than 20 % of the first half-wave.
- 4) The tube can be operated with peak currents up to 50 kA, however limiting the peak current can increase spark gap life.

ORDERING INFORMATION

- LA86-X X – DC breakdown voltage.
- Please indicate your impulse voltage requirements, switching capacitance/energy per shot and pulse repetition rate.

OUTLINE

(all dimensions are in millimeters)

