



RK26

2-ELECTRODE SPARK GAP

GENERAL INFORMATION AND APPLICATIONS

The RK26-series of 2-electrode spark gaps are high-pressure gas-discharge tubes, hermetically sealed in a ceramic-metal envelope, manufactured in conformity with technical conditions KBΦM 433.215.009TY.

The tubes are intended for general switching in single shot and repetitive pulse generators, including Marx generators and turbine engine ignition circuits.

The design of the tubes is protected by Russian patent #108224 (priority 11/09/2009).

THE SWITCH DOES NOT CONTAIN ANY RADIOACTIVE, TOXIC AND OTHER HAZARDOUS SUBSTANCES!

PRODUCT SPECIFICATIONS

Terms	Unit	Maximum Value
DC breakdown voltage range, (DCV) ^(Note 1)	kV	0.6-10.0
Impulse ratio, measured at 2 kV, (8/20 us waveshape) ^(Note 2)	-	<1.5
Breakdown voltage tolerance within the lifetime	%	<15
Peak current (8/20 μs) ^(Notes 3,4)	kA	20.0
Charge transfer, single discharge (8/20 μs)	Coulomb	0.5
Pulse repetition rate	Hz	100
Insulation Resistance	MΩ	> 1000
Operating temperatures	°C	-60 ... +200
Net weight	g	50

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. RK26 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=20 kV the spark gap is signified as RK26-20, DCBV= 10kV –RK26-10 etc. If DC voltage exceeds 20 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 30 kA, however limiting the peak current can increase spark gap life.
5. The life of a spark gap increases with decreasing charge transfer. For example, the cumulative charge life is 500 C at 1.0 C per discharge, rising to 5000 C at 1 mC per discharge. For ringing currents all half-waves charge should be taken into account.
6. The gas content of a spark gap might be inflammable when mixed with air. Devices should not be operated if damage to the envelope is evident.

ORDERING INFORMATION

- RK26-X X – DC breakdown voltage.
- Please indicate your impulse voltage requirements, switching capacitance/energy per shot and pulse repetition rate.

OUTLINE

(all dimensions are nominal and given in millimeters)

