Switching Spark Gap

Series/Type:	**SSG5X-1**
Ordering code:	**B88069X0270S102**
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Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application.** As a rule we are either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether a product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that **in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified.** In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
4. In order to satisfy certain technical requirements, **some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous)**. Useful information on this will be found in our Material Data Sheets on the Internet (www.tdk-electronics.tdk.com/material). Should you have any more detailed questions, please contact our sales offices.
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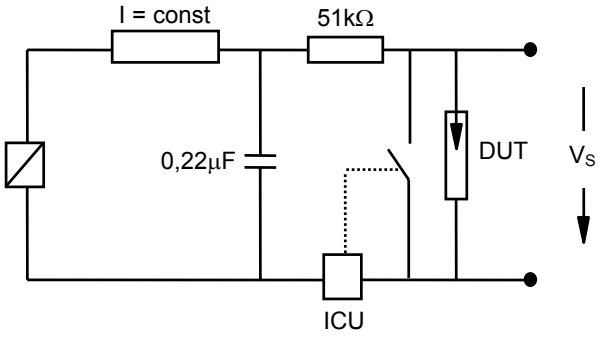
Release 2018-10

Nominal breakdown voltage V_N	5000	V
Initial values [2]		
Static breakdown voltage V_S [1]		
First ignition value $V_{S, FTE}$ after 24 hours in darkness	≤ 6500	V
Following ignition values $V_{S, FIV}$	4000 ... 6000	V
Electrical life time [3]		
Breakdown voltage V_B		
First ignition value $V_{B, FTE}$ after 24 hours in darkness	≤ 7000	V
Following ignition values $V_{B, FIV}$	3750 ... 6250	V
Switching operations		
at 0 ... +100 °C	100 000	Ignitions
Test circuit parameters		
Open circuit voltage V_0	7000	V
Loading resistance R	4000	kΩ
Discharge capacitance C	1	nF
Inductance L	20	µH
Discharge peak current I_P	30	A
General technical data		
Insulation resistance at 100 V	> 100	MΩ
Early ignition values below 3750 V	≤ 1	%
Breakdown time	≤ 50	ns
Maximum switching frequency	100	Hz
Weight	~ 2	g
Marking, red	**EPCOS 5000 YY O** 5000 - Nominal voltage YY - Year of production O - Non radioactive	

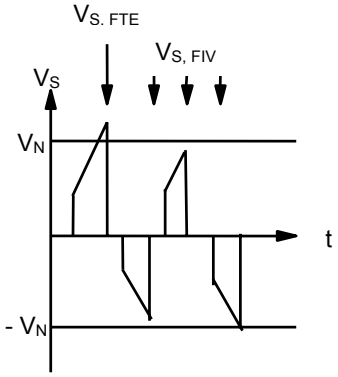
[1] At delivery AQL 0,65 level II, DIN ISO 2859
[2] Page 2, Fig. 1 and 2
[3] Page 2, Fig. 3 and 4

Fig. 1: QC- test circuit (100% outgoing inspection)



DUT device under test
ICU ignition control unit (sensitivity 10 .. 30 µA)
Discharge current 10 – 20 mA

Fig. 2: Explanation of measurands



$dV_S/dt \sim dV_N/dt$

Fig. 3: QC- test circuit (sampling inspection at 25 °C)

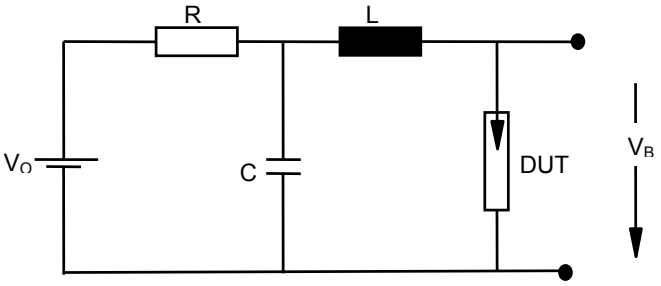
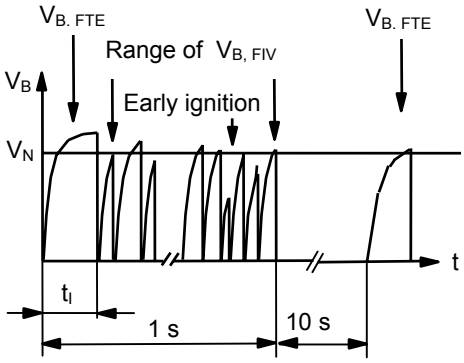
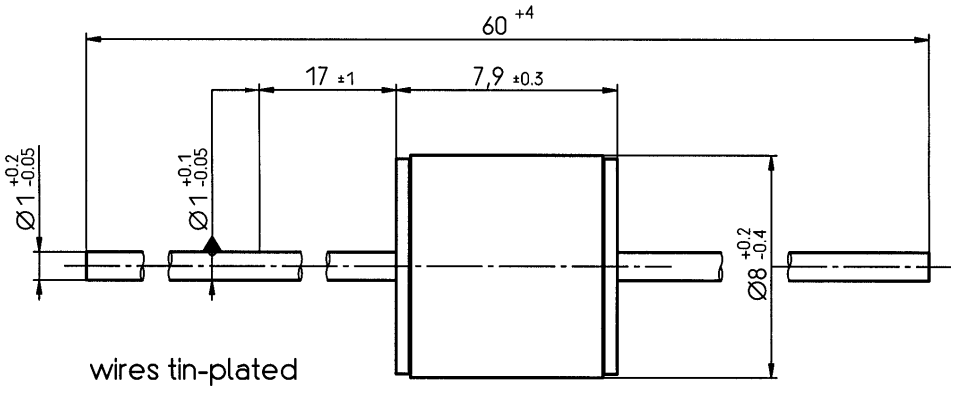


Fig. 4: Explanation of measurands





Not to scale

Dimensions in mm

Non controlled document