



## Switching Spark Gap

**Series/Type:** SSG3X-1  
**Ordering code:** B88069X0260xxxx  
**Date:** 22.02.2005  
**Version:** Issue 06

© EPCOS AG 2015. Reproduction, publication and dissemination of this publication, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

EPCOS AG is a TDK Group Company.

## Important notes

The following applies to all products named in this publication:

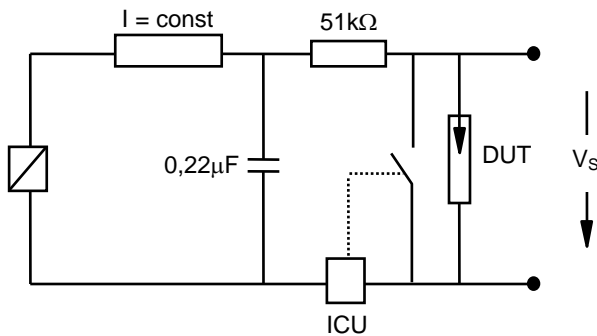
1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is 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 an EPCOS 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.epcos.com/material](http://www.epcos.com/material)). Should you have any more detailed questions, please contact our sales offices.
  5. We constantly strive to improve our products. Consequently, **the products described in this publication may change from time to time**. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order. We also **reserve the right to discontinue production and delivery of products**. Consequently, we cannot guarantee that all products named in this publication will always be available. The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.
  6. Unless otherwise agreed in individual contracts, **all orders are subject to the current version of the "General Terms of Delivery for Products and Services in the Electrical Industry" published by the German Electrical and Electronics Industry Association (ZVEI)**.
  7. The trade names EPCOS, Alu-X, CeraDiode, CeraLink, CeraPad, CeraPlas, CSMP, CSSP, CTVS, DeltaCap, DigiSiMic, DSSP, ExoCore, FilterCap, FormFit, LeaXield, MiniBlue, MiniCell, MKD, MKK, MotorCap, PCC, PhaseCap, PhaseCube, PhaseMod, PhiCap, PQSine, SIFERRIT, SIFI, SIKOREL, SilverCap, SIMDAD, SiMic, SIMID, SineFormer, SIOV, SIP5D, SIP5K, TFAP, ThermoFuse, WindCap are **trademarks registered or pending** in Europe and in other countries. Further information will be found on the Internet at [www.epcos.com/trademarks](http://www.epcos.com/trademarks).
-

Features	Applications
Extremely Long Life Time	Ignition of HID Lamps for Video Projection
Stable Performance over Life	
Insensitive Performance against Variations in Temperature	
Very Low Switching Losses	
Very Short Breakdown Time	
High Reliability by Robust Design	
RoHS Compliance	

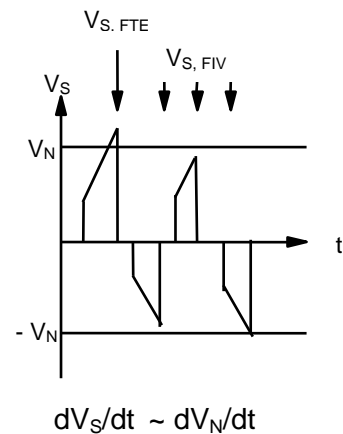
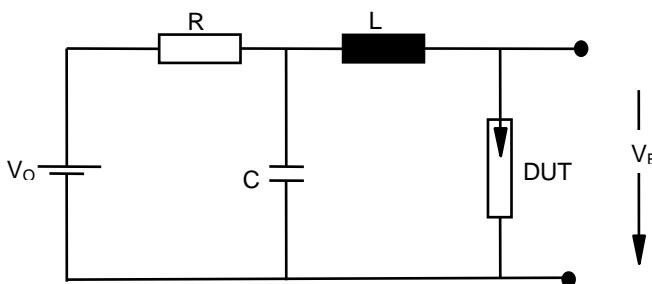
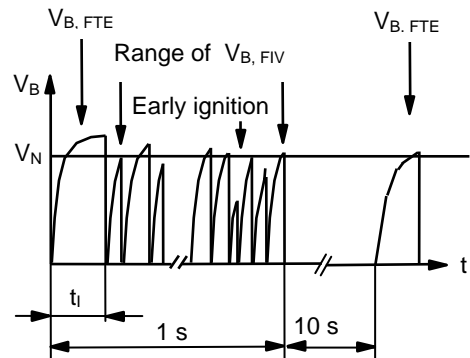
\* Footnotes see page 2

Nominal breakdown voltage $V_N$	3000	V
Initial values <sup>2)</sup>		
Static breakdown voltage $V_S$ <sup>1)</sup>		
First ignition value $V_{S, FTE}$ after 24 hours in darkness	$\leq 3900$	V
Following ignition values $V_{S, FIV}$	2550 ... 3540	V
Electrical life time <sup>3)</sup>		
Breakdown voltage $V_B$		
First ignition value $V_{B, FTE}$ after 24 hours in darkness	$\leq 4200$	V
Following ignition values $V_{B, FIV}$	2400 ... 3600	V
Switching operations at 0 ... +100 °C	1 000 000	Ignitions
Test circuit parameters		
Open circuit voltage $V_0$	4200	V
Loading resistance R	4000	k $\Omega$
Discharge capacitance C	1.5	nF
Inductance L	7.5	$\mu$ H
Discharge peak current $I_P$	50	A
General technical data		
Insulation resistance at 100 V	$> 100$	M $\Omega$
Early ignition values below 2400 V	$\leq 1$	%
Breakdown time	$\leq 50$	ns
Maximum switching frequency	400	Hz
Weight	$\sim 2$	g
Marking, red	<b>EPCOS 3000 YY O</b> 3000 - Nominal voltage YY - Year of production O - Non radioactive	

- a) xxxx = S102 (100 pcs. on 5 taped stripes)  
= T502 (500 pcs. on tape and reel)
- 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

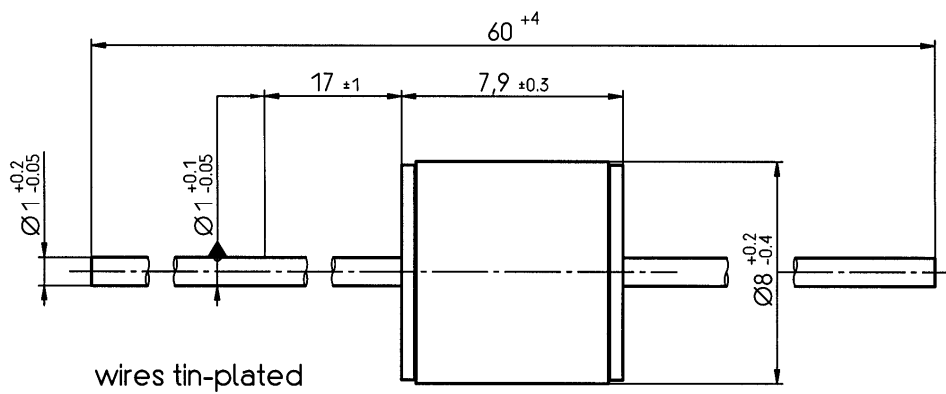
**Fig. 1: QC- test circuit (100% outgoing inspection)**


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

**Fig. 2: Explanation of measurands**

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

**Fig. 4: Explanation of measurands**


© EPCOS AG 2002. Reproduction, publication and dissemination of this data sheet, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.



*Not to scale*

*Dimensions in mm*

*Non controlled document*

© EPCOS AG 2002. Reproduction, publication and dissemination of this data sheet, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.