



## Switching spark gap

SSG with lead wires

**Series/Type:** FS5,5X-1  
**Ordering code:** B88069X3440S102  
**Version/Date:** Issue 08 / 2013-05-22

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**Features**

- Extremely long life time
- Stable performance over life
- Insensitive performance against variations in temperature
- Very low switching losses
- Very short breakdown time
- High reliability by robust design
- RoHS compatible

**Applications**

- Ignition circuits
- High voltage switch

**Electrical specifications**

Nominal breakdown voltage $V_N$	5000	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	$\leq 7000$	V
Following ignition values $V_{S, FIV}$	4850 ... 6150	V
Electrical life time <sup>3)</sup>		
Breakdown voltage $V_B$		
First ignition value $V_{B, FTE}$ after 24 hours in darkness	$\leq 7000$	V
Following ignition values $V_{B, FIV}$	4000 ... 6600	V
Switching operations at $-40 \dots +125 \text{ }^\circ\text{C}$	500 000	Ignitions
Test circuit parameters		
Open circuit voltage $V_0$	10000	V
Loading resistance R	4000	k $\Omega$
Discharge capacitance C	1.5	nF
Inductance L	0.5	$\mu\text{H}$
Discharge peak current $I_P$	$\sim 200$	A
General technical data		
Insulation resistance at 100 V	$> 100$	M $\Omega$
Early ignition values between 2000 ... 4000 V	$\leq 5$	%
Breakdown time	$\leq 50$	ns
Maximum switching frequency	100	Hz
Weight	$\sim 2$	g
Marking, blue positive	<b>EPCOS 5500 WWY O</b> 5500 - Nominal voltage WW - Calendar week of production Y - Year of production O - Non radioactive	

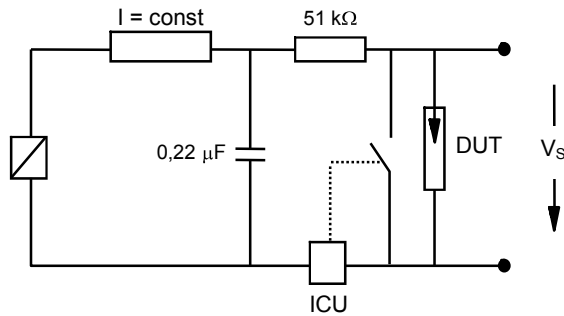
<sup>1)</sup> At delivery AQL 0,65 level II, DIN ISO 2859

<sup>2)</sup> Fig. 1 and 2

<sup>3)</sup> Fig. 3 and 4

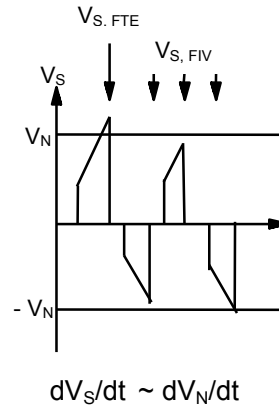
**Test circuits**

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

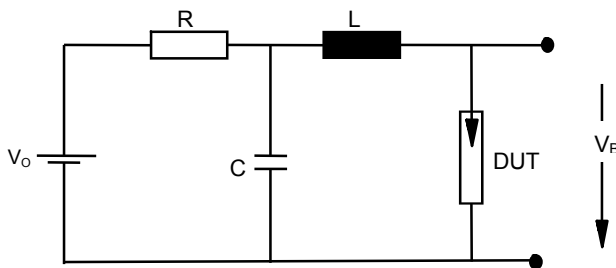


DUT device under test  
 ICU ignition control unit (sensitivity 10 ... 30 μA)  
 Discharge current 10 ... 20 mA

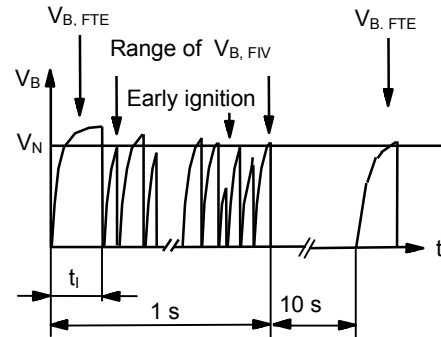
**Fig. 2: Explanation of measurands**



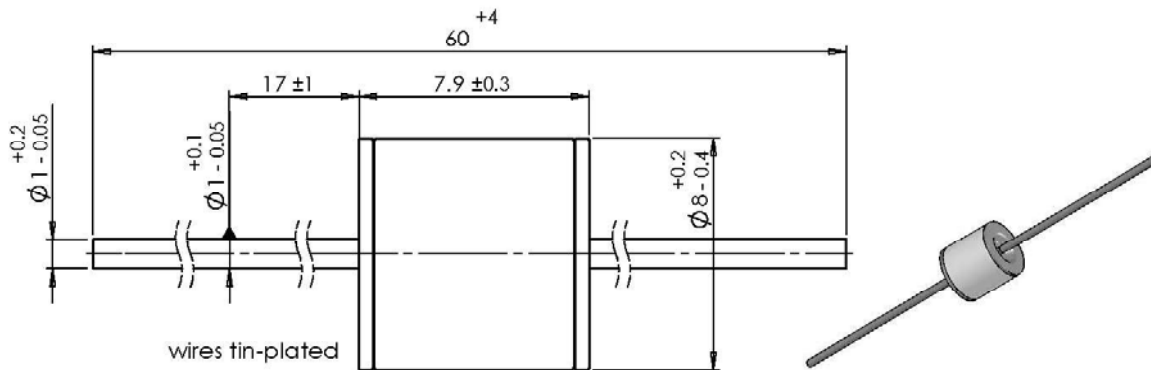
**Fig. 3: QC- test circuit (sampling inspection at 25 °C)**



**Fig. 4: Explanation of measurands**

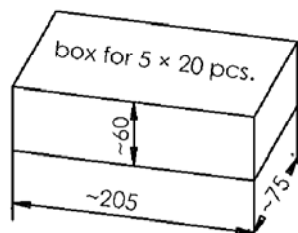
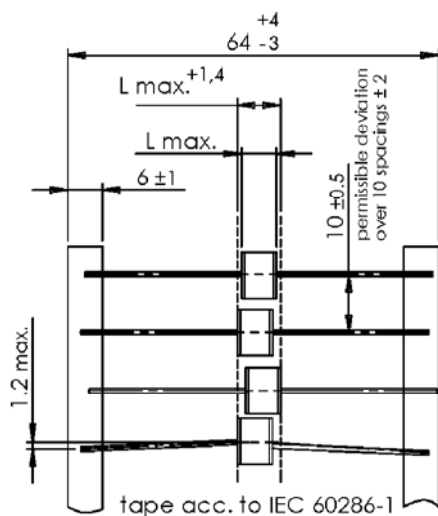


**Dimensional drawing in mm**



**Ordering code and packing advice**

*B88069X...S102 = 100 pcs. on 5 taped stripes*


**Cautions and warnings**

- Switching spark gaps may be used only within their specified values.
- Damaged switching spark gaps must not be re-used.

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