



## Switching spark gap

SSG with lead wires

**Series/Type:** FS08X-1JG  
**Ordering code:** B88069X3790T502  
Version/Date: Issue 03 / 2008-10-29

Features	Applications
<ul style="list-style-type: none"> <li>▪ Extremely long life time</li> <li>▪ Stable performance over life</li> <li>▪ Insensitive performance against variations in temperature</li> <li>▪ Very low switching losses</li> <li>▪ Very short breakdown time</li> <li>▪ High reliability by robust design</li> <li>▪ RoHS compatibility</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ignition circuits</li> <li>▪ High voltage switch</li> </ul>

**Electrical specifications**

Nominal breakdown voltage $V_N$	800	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 Following ignition values $V_{S, FIV}$	$\leq 950$ 704 ... 896	V V
Electrical life time <sup>3)</sup> Breakdown voltage $V_B$ First ignition value $V_{B, FTE}$ after 24 hours in darkness Ignition time $t_i$ at $V_0$ during life Following ignition values $V_{B, FIV}$	$\leq 1000$ <b>S.C.</b> <sup>4)</sup> $\leq 60$ 680 ... 920 <b>S.C.</b> <sup>4)</sup>	V ms V
Switching operations at - 40 °C at + 25 °C at +125 °C at +150 °C at +170 °C (at -40 ... +170 °C )	20 000 70 000 <b>S.C.</b> <sup>4)</sup> 70 000 30 000 10 000 (total 200 000 )	Ignitions Ignitions Ignitions Ignitions Ignitions
Test circuit parameters Open circuit voltage $V_0$ Loading resistance R Discharge capacitance C Inductance L Discharge peak current $I_P$	1000 68 100 0.5 ~ 400	V kΩ nF μH A
General technical data Max. static breakdown voltage at 100 kV/s Insulation resistance at 100 V Early ignition values < 680 V <sup>5)</sup> Breakdown time Maximum switching frequency Maximum loading current Weight	1300 > 100 <b>S.C.</b> <sup>4)</sup> $\leq 1$ $\leq 50$ 400 50 ~ 2	V MΩ % ns Hz mA g

Marking, blue positive

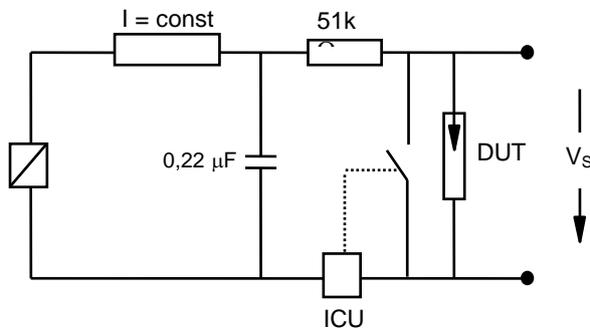
**EPCOS 800 WWY O**

800 - Nominal voltage  
 WW - Calendar week of production  
 Y - 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
- 4) S.C. = **S**ignificant **C**haracteristic
- 5) No early ignition value < 500 V

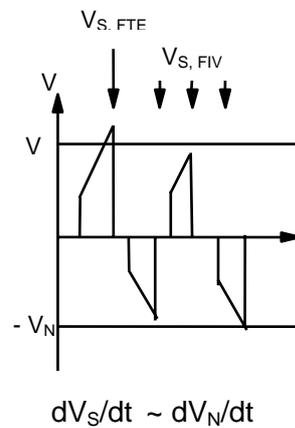
**Figures**

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

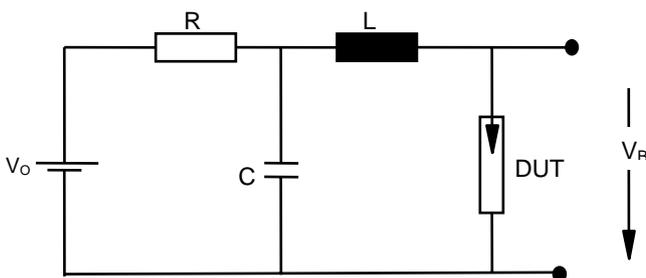


DUT device under test  
 ICU ignition control unit (sensitivity 10 ... 30 µA)  
 Discharge current 10 – 20 mA

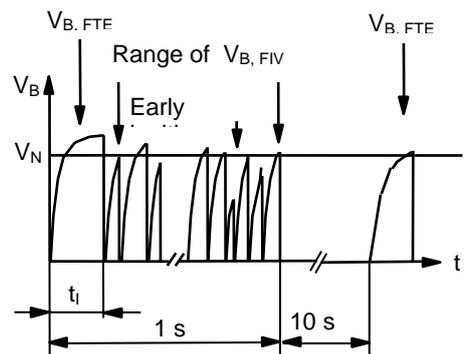
**Fig. 2:** Explanation of measurands



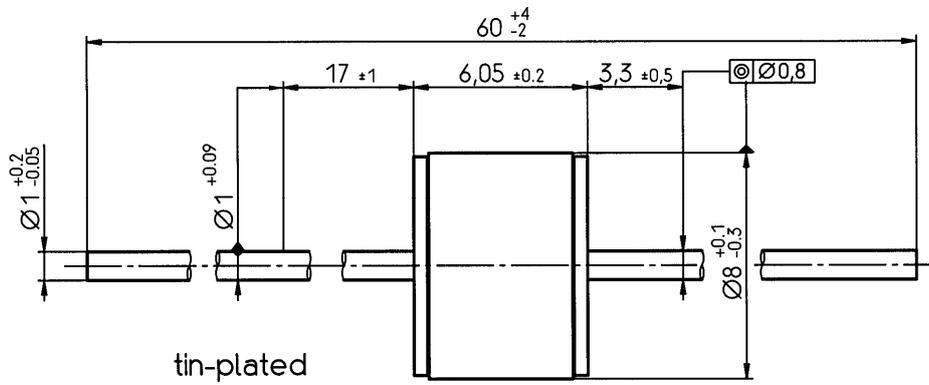
**Fig. 3:** QC- test circuit (sampling inspection at 25 °C)



**Fig. 4:** Explanation of measurands



**Dimensional Drawing**



*Not to scale*

*Dimensions in mm*

*Non controlled document*

**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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