



Switching spark gap

SSG with lead wires

Series/Type: FS1X-1G
Ordering code: B88069X3450T502
Date: Issue 04 / 2005-11-11

Features	Applications
<ul style="list-style-type: none"> ▪ 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 	<ul style="list-style-type: none"> ▪ Ignition circuits ▪ High voltage switch ▪ Ignition of HID lamps

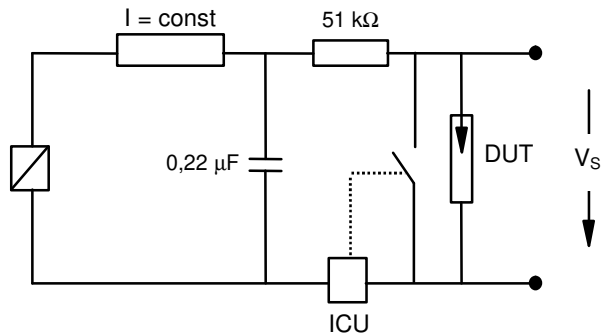
Electrical specifications

Nominal breakdown voltage V_N	1000	V
Initial values ²⁾ Static breakdown voltage V_S ¹⁾ First ignition value $V_{S, FTE}$ after 24 hours in darkness Following ignition values $V_{S, FIV}$	≤ 1150 900 ... 1130	V V
Electrical life time ³⁾ 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 $V_{B, FIV}$	≤ 1400 ≤ 60 850 ... 1150	V ms V
Switching operations at $-40\text{ }^\circ\text{C}$ at $+25; +125\text{ }^\circ\text{C}$	100 000 200 000	Ignitions Ignitions
Test circuit parameters Open circuit voltage V_0 Loading resistance R Discharge capacitance C Inductance L Discharge peak current I_P	1400 110 68 0.5 ~ 400	V k Ω nF μH A
General technical data Insulation resistance at 100 V Early ignition values between 600 ... 850 V Breakdown time Maximum switching frequency Maximum loading current Weight	> 100 ≤ 1 ≤ 50 400 50 ~ 2	M Ω % ns Hz mA g
Marking, blue positive	EPCOS 1000 WWY O 1000 - 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) Fig. 1 and 2
- 3) Fig. 3 and 4

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

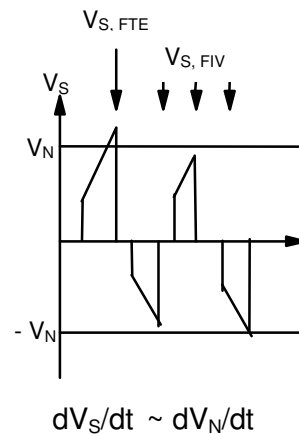


Fig. 3: QC- test circuit (sampling inspection at 25 °C)

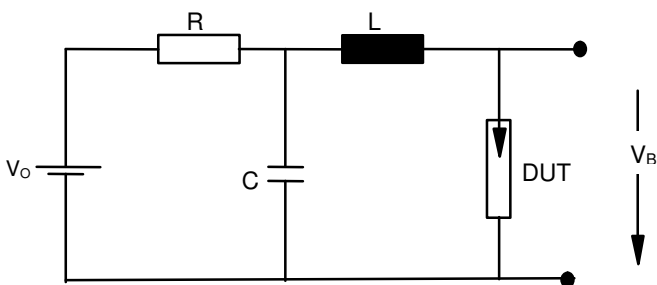
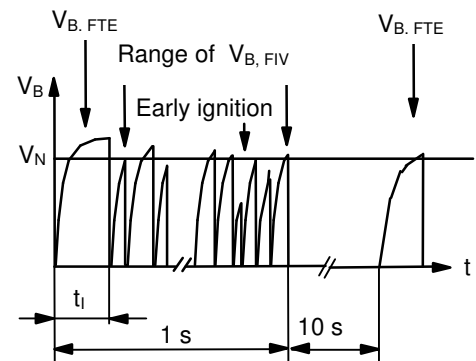
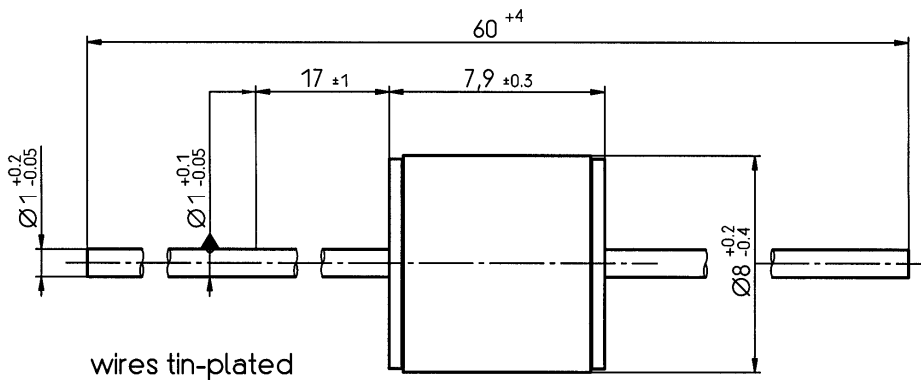


Fig. 4: Explanation of measurands



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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