



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

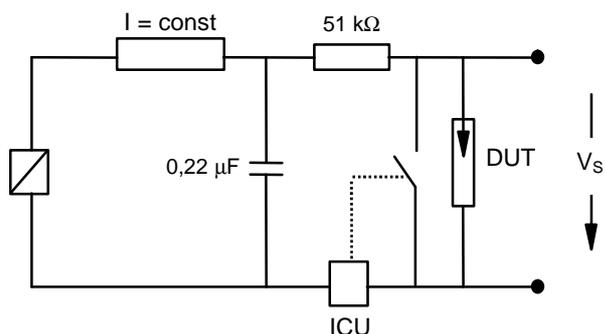
Electrical specifications

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	≤ 1150	V
Following ignition values $V_{S, FIV}$	900 ... 1130	V
Electrical life time ³⁾		
Breakdown voltage V_B		
First ignition value $V_{B, FTE}$ after 24 hours in darkness	≤ 1400	V
Ignition time t_i at V_0 during life	≤ 60	ms
Following ignition values $V_{B, FIV}$	850 ... 1150	V
Switching operations		
at -40 °C	100 000	Ignitions
at $+25$; $+125$ °C	200 000	Ignitions
Test circuit parameters		
Open circuit voltage V_0	1400	V
Loading resistance R	110	k Ω
Discharge capacitance C	68	nF
Inductance L	0.5	μ H
Discharge peak current I_P	~ 400	A
General technical data		
Insulation resistance at 100 V	> 100	M Ω
Early ignition values between 600 ... 850 V	≤ 1	%
Breakdown time	≤ 50	ns
Maximum switching frequency	400	Hz
Maximum loading current	50	mA
Weight	~ 2	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

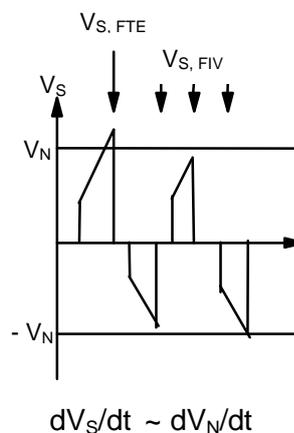


Fig. 3: QC- test circuit (sampling inspection at 25 °C)

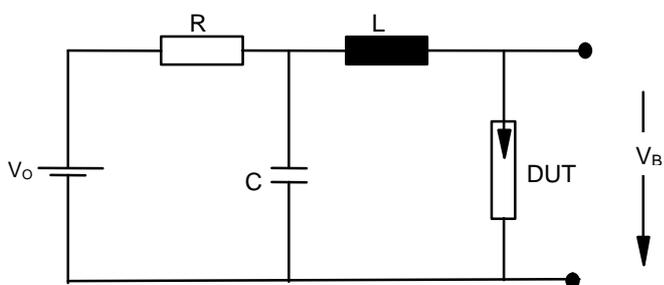
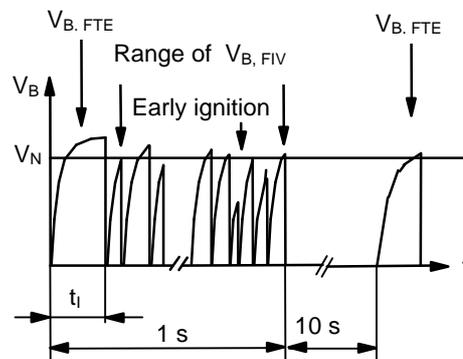
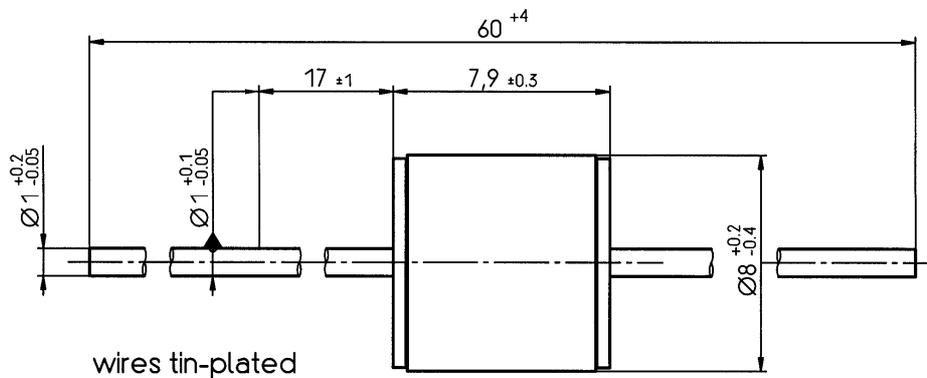


Fig. 4: Explanation of measurands



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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