



## Switching Spark Gap

FS1X-1G

<b>Series/Type:</b>	<b>FS1X-1G</b>
<b>Ordering code:</b>	<b>B88069X3350T502</b>
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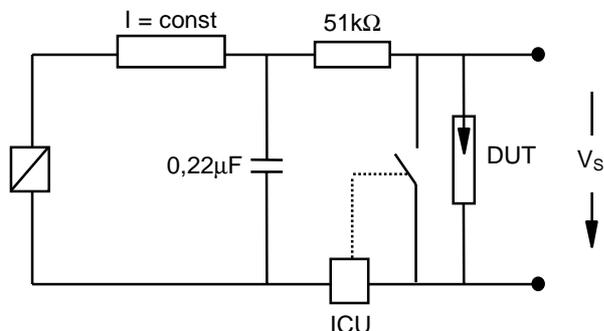
Nominal breakdown voltage $V_N$	1000	V
Initial values <sup>2)</sup>		
Static breakdown voltage $V_S$ <sup>1)</sup>		
First ignition value $V_{S, FTE}$ after 24 hours in darkness	$\leq 1150$	V
Following ignition values $V_{S, FIV}$	900 ... 1130	V
Electrical life time <sup>3)</sup>		
Breakdown voltage $V_B$		
First ignition value $V_{B, FTE}$ after 24 hours in darkness	$\leq 1400$	V
Ignition time $t_i$ at $V_0$ during life	$\leq 60$	ms
Following ignition values $V_{B, FIV}$	850 ... 1150	V
Switching operations		
at $-40\text{ }^\circ\text{C}$	100 000	Ignitions
at $+25; +125\text{ }^\circ\text{C}$	200 000	Ignitions
Test circuit parameters		
Open circuit voltage $V_0$	1400	V
Loading resistance R	110	k $\Omega$
Discharge capacitance C	68	nF
Inductance L	0.5	$\mu\text{H}$
Discharge peak current $I_P$	$\sim 400$	A
General technical data		
Insulation resistance at 100 V	$> 100$	M $\Omega$
Early ignition values between 600 ... 850 V	$\leq 1$	%
Breakdown time	$\leq 50$	ns
Maximum switching frequency	400	Hz
Maximum loading current	50	mA
Weight	$\sim 2$	g
Marking, blue	<b>EPCOS 1000 WWY O</b> 1000 - 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> Page 2, Fig. 1 and 2

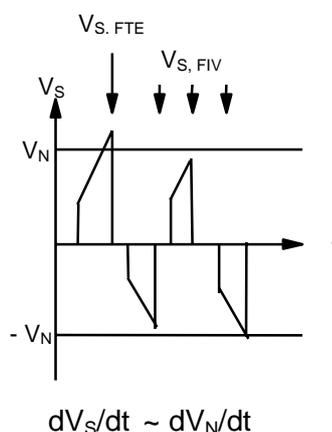
<sup>3)</sup> Page 2, Fig. 3 and 4

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

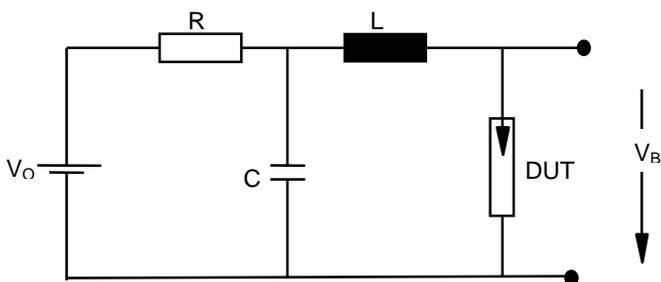


DUT device under test  
 ICU ignition control unit (sensitivity 10 .. 30 μA)  
 Discharge current 10 – 20 mA

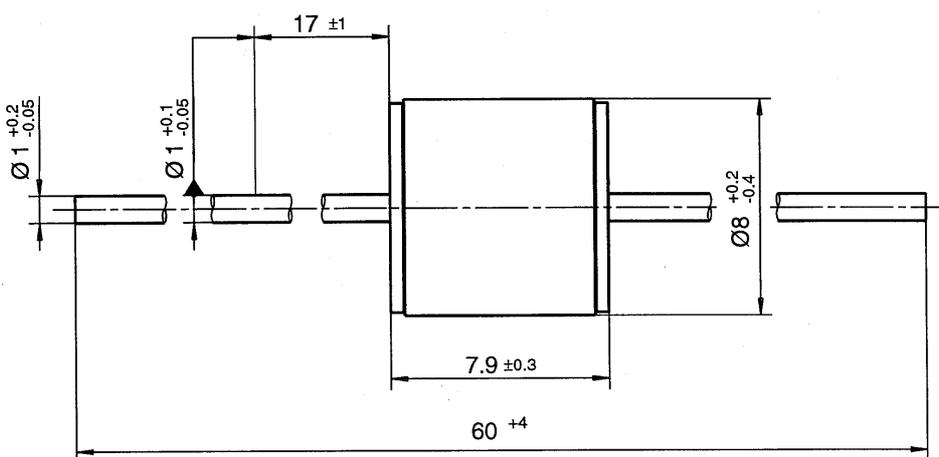
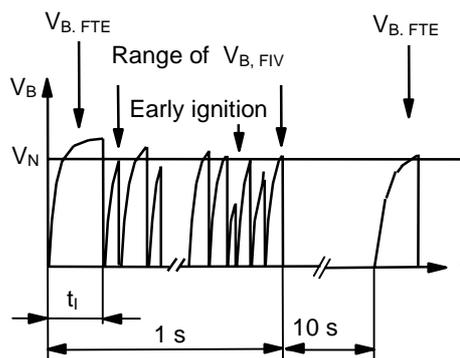
**Fig. 2: Explanation of measurands**



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



**Fig. 4: Explanation of measurands**



*Not to scale*  
*Dimensions in mm*  
*Non controlled document*

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