



## Switching spark gap

SSG with lead wires

**Series/Type:** FS08X-1JGS  
**Ordering code:** B88069X5980T502  
**Version/Date:** Issue 07 / 2012-10-05

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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 due to robust design
- RoHS compatibility

**Applications**

- Ignition circuits
- High voltage switch

**Electrical specifications**

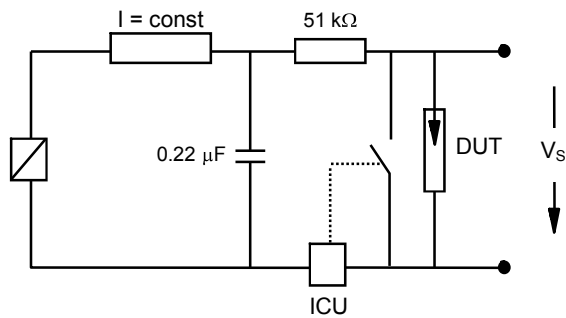
Nominal breakdown voltage $V_N$	850	V
Initial values <sup>2)</sup>		
Static breakdown voltage $V_S$ <sup>1)</sup>		
First ignition value $V_{S, FTE}$ after 24 hours in darkness	$\leq 1000$	V
Following ignition values $V_{S, FIV}$	748 ... 952	V
Electrical life time <sup>3)</sup>		
Breakdown voltage $V_B$		
First ignition value $V_{B, FTE}$ after 24 hours in darkness	$\leq 1050$	V
Ignition time $t_i$ at $V_0$ during life	$\leq 150$	ms
Following ignition values $V_{B, FIV}$	722 ... 978	V
Switching operations		
at $-40\text{ }^\circ\text{C}$	40 000	Ignitions
at $+25; 125; 150\text{ }^\circ\text{C}$	200 000	Ignitions
Test circuit parameters		
Open circuit voltage $V_0$	1050	V
Loading resistance R	68	k $\Omega$
Discharge capacitance C	100	nF
Inductance L	0.4	$\mu\text{H}$
Discharge peak current $I_P$ , 8 half cycles, 850 V	650	A
General technical data		
Insulation resistance at 100 V	$> 100$	M $\Omega$
Early ignition values below 722 V	$\leq 1$	%
Breakdown time	$\leq 50$	ns
Maximum switching frequency	400	Hz
Maximum loading current	50	mA
Weight	$\sim 2$	g
Marking, blue positive	<b>EPCOS 800 WWY O</b> 800 - Nominal voltage WW - Calendar week of production Y - Year of production O - Non radioactive	

Remarks on next page

- 1) At delivery AQL 0,65 level II, DIN ISO 2859
- 2) Test circuits, fig. 1 and 2
- 3) Test circuits, fig. 3 and 4

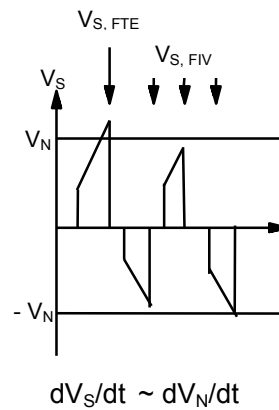
**Test circuits**

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

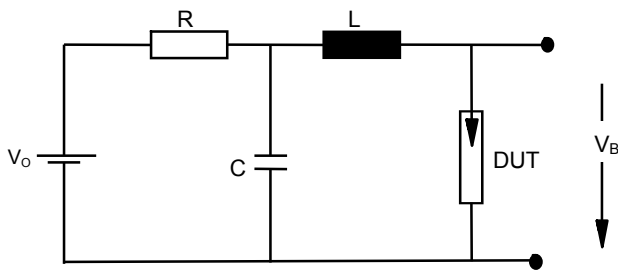


DUT device under test  
 ICU ignition control unit (sensitivity 10 ... 30 μA)  
 Discharge current 10 ... 20 mA

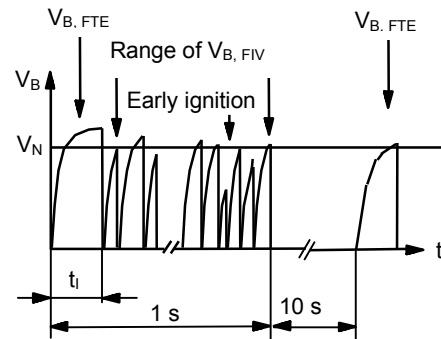
**Fig. 2: Explanation of measurands**

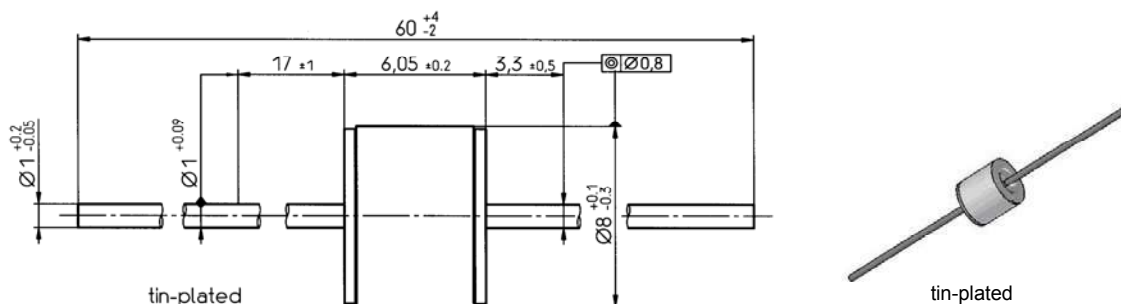


**Fig. 3: QC test circuit (sampling inspection at 25 °C)**

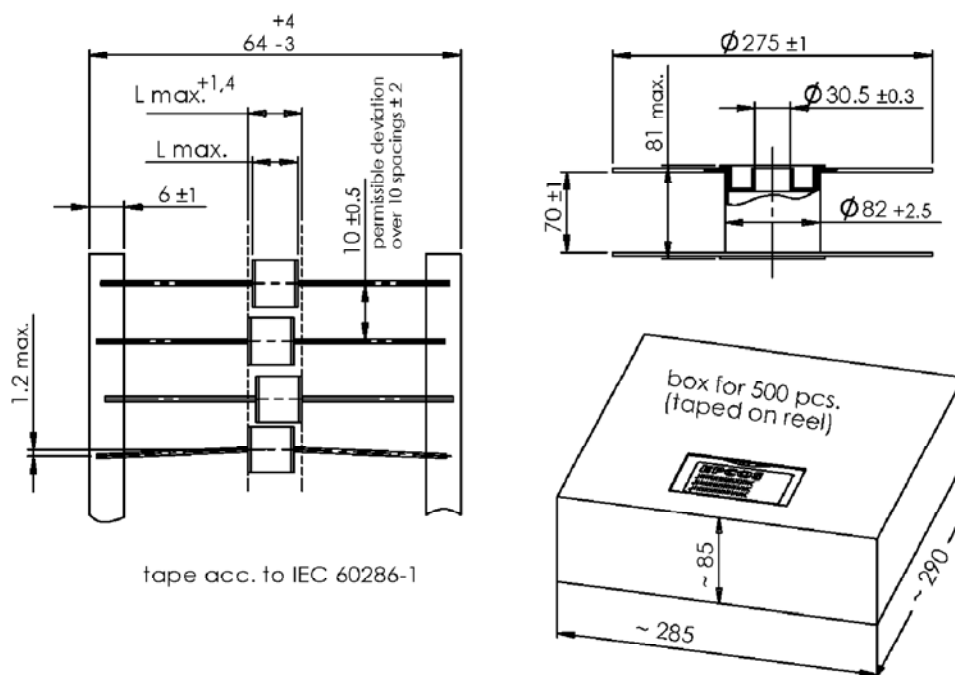


**Fig. 4: Explanation of measurands**



**Dimensional drawing in mm**

**Ordering code and packing advice**

**B88069X5980T502** = 500 pcs. on tape and reel


**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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