Switching spark gap

SSG with lead wires

Series/Type: **FS08X-1JGS**
Ordering code: **B88069X5980T502**
Version/Date: Issue 06 / 2012-05-31

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

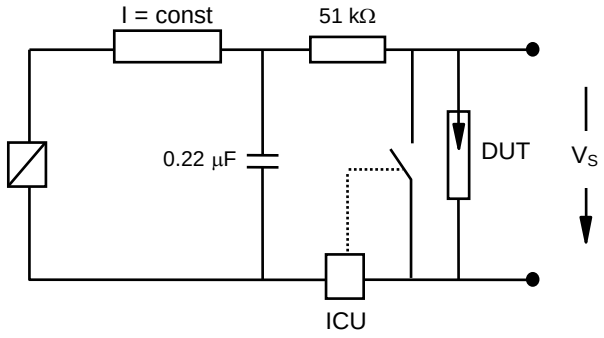
Nominal breakdown voltage V_N	850	V
Initial values [2]		
Static breakdown voltage V_S [1]		
First ignition value $V_{S, FTE}$ after 24 hours in darkness	≤ 1000	V
Following ignition values $V_{S, FIV}$	748 ... 952	V
Electrical life time [3]		
Breakdown voltage V_B		
First ignition value $V_{B, FTE}$ after 24 hours in darkness	≤ 1050	V
Ignition time t_I at V_0 during life	≤ 150	ms
Following ignition values $V_{B, FIV}$	722 ... 978	V
Switching operations		
at –40 °C	40 000	Ignitions
at +25; 125; 150 °C	200 000	Ignitions
Test circuit parameters		
Open circuit voltage V_0	1050	V
Loading resistance R	68	kΩ
Discharge capacitance C	100	nF
Inductance L	0.4	µH
Discharge peak current I_P, 8 half cycles, 850 V	650	A
General technical data		
Insulation resistance at 100 V	> 100	MΩ
Early ignition values below 722 V	≤ 1	%
Breakdown time	≤ 50	ns
Maximum switching frequency	400	Hz
Maximum loading current	50	mA
Weight	~ 2	g
Marking, blue positive	**EPCOS 800 WWY O** 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

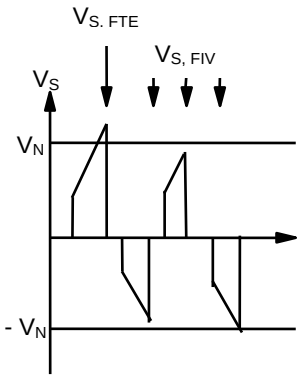
Test circuits

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



$dV_S/dt \sim dV_N/dt$

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

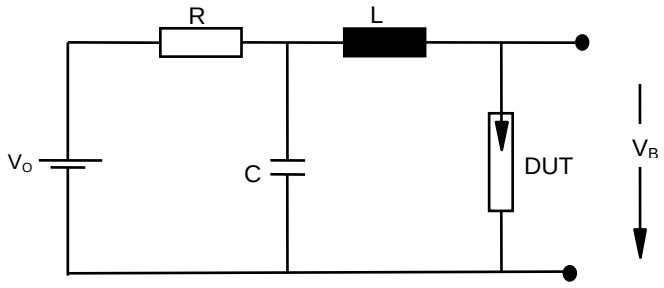
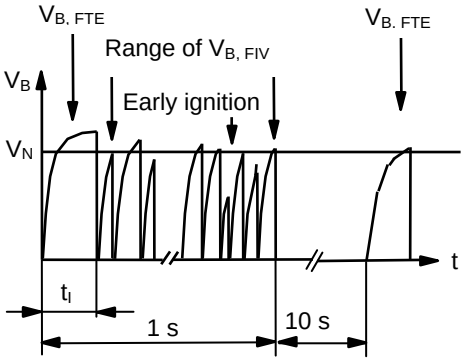
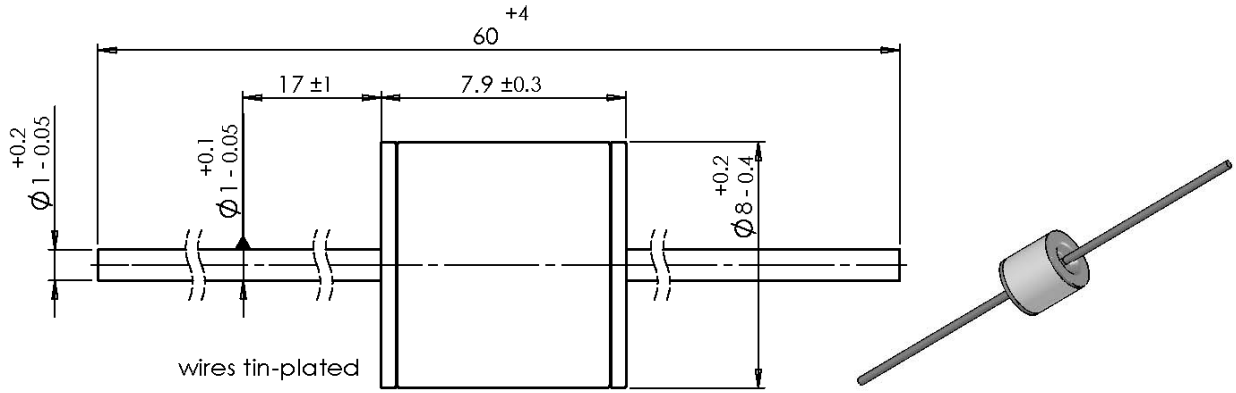


Fig. 4: Explanation of measurands

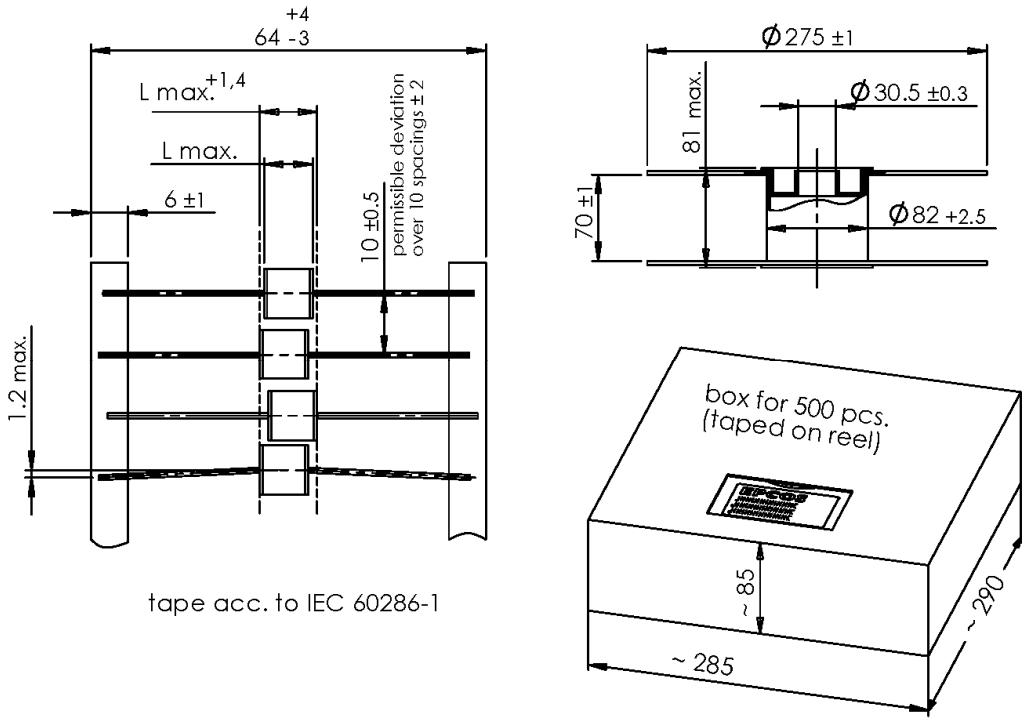


Dimensional drawing in mm



Ordering code and packing advice

*B88069X5980**T502** = 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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