Switching spark gap

SSG with lead wires

Series/Type:	**SSG2CX-1**
Ordering code:	**B88069X6043******
Date:	2019-10-10
Version:	01

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 by robust design
- RoHS compatible

Applications

- Ignition of HID lamps

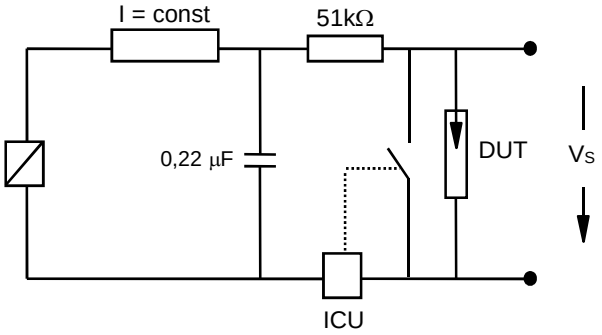
Electrical specifications

Nominal breakdown voltage V_n	2000	V
Initial values [2]		
Static breakdown voltage V_s [1]		
First ignition value $V_{s, fte}$ after 24 hours in darkness	≤ 2600	V
Following ignition values $V_{s, fiv}$	1600 ... 2400	V
General technical data		
Insulation resistance at 100 V	> 100	MΩ
Early ignition values between 1000 … 1600 V	≤ 3	%
Breakdown time	≤ 50	ns
Weight	~ 2	g
Marking, red positive	EPCOS 2000 YY O 2000 - Nominal voltage YY - Year of production O - Non radioactive	

[1] At delivery AQL 0,65 level II, DIN ISO 2859
[2] Page 2, Fig. 1 and 2

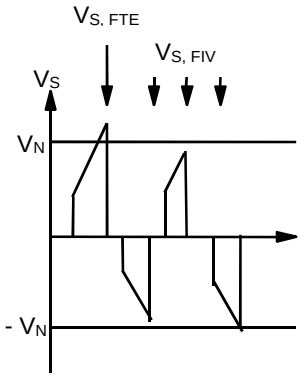
Test circuits

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



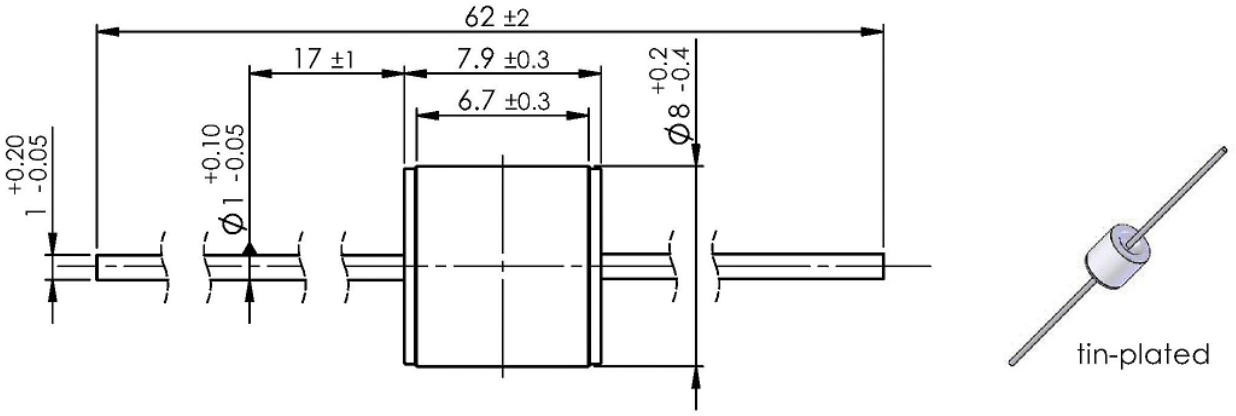
DUT device under test
ICU ignition control unit (sensitivity 10 ... 30 µA)
Discharge current 10 ... 20 mA

Fig. 2: Explanation of measurands



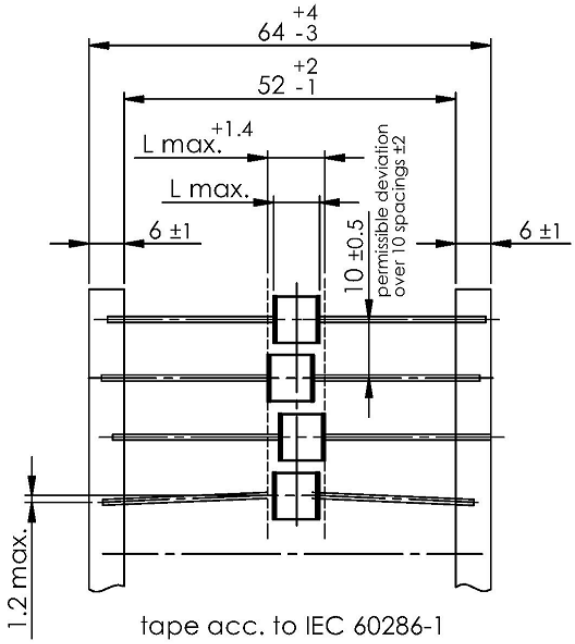
$dV_S/dt \sim dV_N/dt$

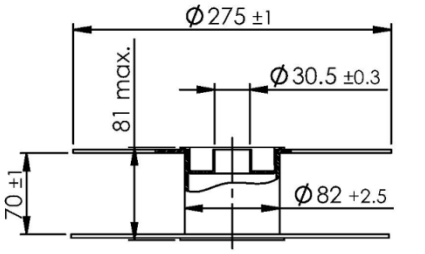
Dimensional drawing in mm

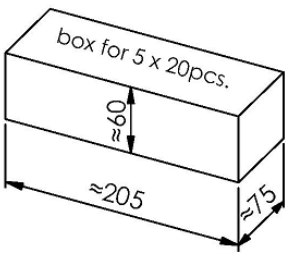


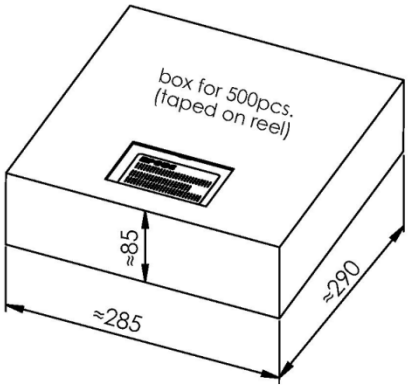
Ordering code and packing advice

*B88069X6043**S102** = 100 pcs. on 5 tape and stripes B88069X6043**T502** = 500 pcs. on tape and reel*



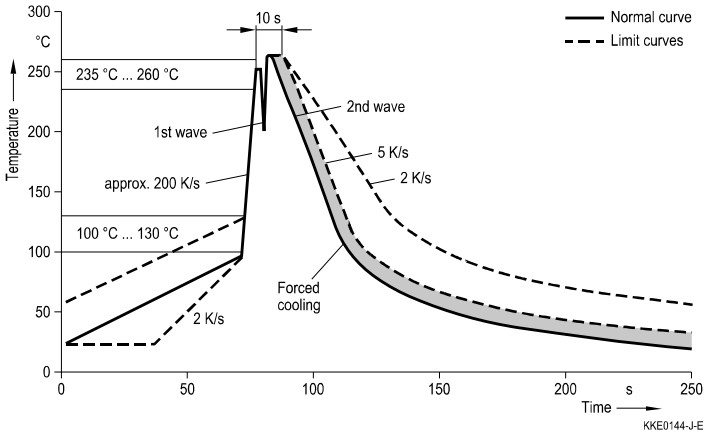






Soldering parameter

Wave soldering



Wave profile features	Pb-free assembly
Solder	Sn 95.5 / Ag 3.8 / Cu 0.7
Solder bath temperature	263 (±3) °C
Dwell time	< 3 s

Soldering profile applied to a single soldering process.

Cautions and warnings

- Switching spark gaps may become hot in case of longer periods of current stress (danger of burning).
- Electromagnetic fields and ionizing radiation may affect the electrical characteristics of the switching spark gaps. The impact of this kind of disturbances (inductive and capacitive comply, field distortion by nearby conductors) has to be avoided by circuit design.
- Switching spark gaps may be used only within their specified values. In case of overload, the head contacts may fail or the component may be destroyed.
- Switching spark gaps must be handled with care and must not be dropped.
- Damaged switching spark gaps must not be re-used.

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