Switching spark gap

SSG with lead wires

Series/Type: CAS02X-068
Ordering code: B88069X0680T502
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### Features
- Extremely long life time
- Stable performance over life
- Insensitive performance against variations in temperature
- Low switching losses
- Very short breakdown time
- High reliability by robust design
- RoHS compatible

### Applications
- Ignition circuits

### Electrical specifications

#### DC spark-over voltage \(^1\) \(^2\)
| | 200 … 255 | V |

#### Initial values
<table>
<thead>
<tr>
<th>Ignition time (t_i) after 150 hours in darkness (^3)</th>
<th>95</th>
<th>99.9</th>
<th>100</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>at –20 °C</td>
<td>≤ 4</td>
<td>≤ 5</td>
<td>≤ 7</td>
<td>s</td>
</tr>
<tr>
<td>at +25; 125 °C</td>
<td>≤ 2</td>
<td>≤ 3</td>
<td>≤ 4</td>
<td>s</td>
</tr>
</tbody>
</table>

#### Electrical life time
- Maximum increase of DC spark-over voltage 25 V
- Switching operations at +25; 125 °C
  - Switching frequency 10 … 25 Hz
  - Switching frequency < 10 Hz
    | 2 000 000 | Ignitions |
    | 4 000 000 | Ignitions |

#### Test circuit parameters
- Open circuit voltage \(V_{\text{op}}\)
- Loading resistance \(R\)
- Discharge capacitance \(C\)
- Inductance \(L\)
- Discharge peak current \(I_p\)
| 230 | \(V_{\text{ac}}\) |
| 15 | kΩ |
| 2.2 | µF |
| 10 | µH |
| ~ 300 | A |

- Insulation resistance at 100 V\(_{\text{dc}}\)
- Capacitance at 1 MHz
- Weight
- Operation and storage temperature
  | > 0.1 | GΩ |
  | < 2 | pF |
  | ~ 1.5 | g |
  | -20 … +125 | °C |

#### Climatic category (IEC 60068-1)
20/ 125/ 21

#### Marking, red positive

**EPCOS CS 230 YYMM O**
- CS - Series
- 230 - Nominal voltage
- YY - Year of production
- MM - Month of production
- O - Non radioactive
1) At delivery AQL 0.65 level II, DIN ISO 2859
2) In ionized mode, after load
3) Time from capacitor charged to the first high voltage spark
   Test circuit: $V_{\text{dc}} = 198 \text{ V}$; $R = 36 \text{ k} \Omega$; $C = 2.2 \mu\text{F}$

**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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