



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Surge arrester

3-electrode arrester

**Series/Type:** T90-A230X  
**Ordering code:** B88069X6700C253  
**Version/Date:** Issue 07 / 2013-03-07

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**Features**

- Very small size
- Fast response time
- High current rating
- Stable performance over life
- Extremely low capacitance
- High insulation resistance
- RoHS-compatible

**Applications**

- Line protection
- Station protection
- Base stations

**Electrical specifications**

DC spark-over voltage <sup>1) 2) 3)</sup>		184 ... 276	V
DC spark-over voltage <sup>2) 4)</sup>		176 ... 550	V
Impulse spark-over voltage			
at 100 V/ $\mu$ s	- for 99% of measured values <sup>3)</sup>	< 600	V
	- for 50% of measured values <sup>3)</sup>	< 550	V
at 1 kV/ $\mu$ s	- for 99% of measured values <sup>3)</sup>	< 700	V
	- for 50% of measured values <sup>3)</sup>	< 650	V
Service life			
10 operations	50 Hz; 1 s <sup>6)</sup>	5	A
10 operations	50 Hz; 1 s <sup>5)</sup>	10	A
10 operations [5x (+) & 5x (-)]	8/20 $\mu$ s <sup>5)</sup>	10	kA
10 operations [5x (+) & 5x (-)]	8/20 $\mu$ s <sup>6)</sup>	5	kA
5 operations	10/250 $\mu$ s <sup>5)</sup>	2.5	kA
2 operations	10/350 $\mu$ s <sup>5)</sup>	2.5	kA
300 operations	10/1000 $\mu$ s <sup>5)</sup>	200	A
DC holdover voltage <sup>8)</sup>			
at 52 V <sub>DC</sub> / 260 $\Omega$		< 150	ms
at 80 V <sub>DC</sub> / 330 $\Omega$		< 150	ms
at 135 V <sub>DC</sub> / 1300 $\Omega$		< 150	ms
Activation after reflow soldering <sup>7)</sup>			
1 operation	U = 600 V; 1 s	2	A
Insulation resistance at 100 V <sub>DC</sub> <sup>4)</sup>		> 1	G $\Omega$
Capacitance at 1 MHz <sup>4)</sup>		< 1.5	pF
Transverse delay time <sup>4)</sup>		< 0.2	$\mu$ s
Arc voltage at 1 A		~ 10	V
Glow to arc transition current		~ 1	A
Glow voltage		~ 60	V
Weight		~ 0.8	g
Storage temperature		-40 ... +90	°C
Climatic category (IEC 60068-1)		40/ 90/ 21	

Marking, blue negative

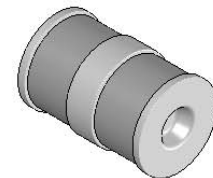
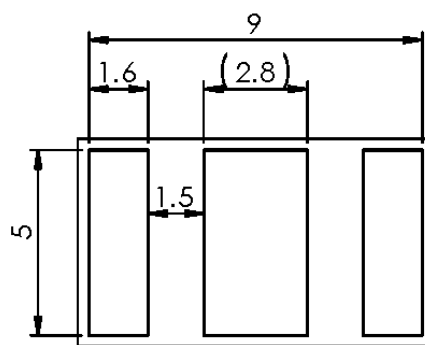
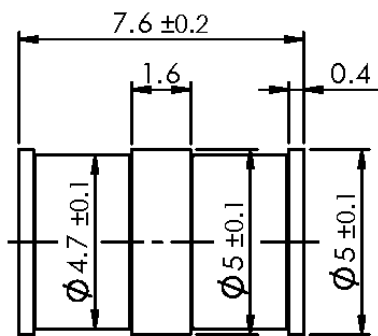
**EPCOS**  
**230 YY O**

230 - Nominal voltage  
YY - Year of production  
O - Non radioactive

- 1) At delivery AQL 0.65 level II, DIN ISO 2859
- 2) In ionized mode
- 3) Tip or ring electrode to center electrode
- 4) Tip to ring electrode
- 5) Total current through center electrode, half value through tip respectively ring electrode
- 6) Total current through center electrode, same value through tip respectively ring electrode
- 7) Total current from ring to tip electrode
- 8) Test in accordance with ITU-Rec. K.12

Terms in accordance with ITU-T Rec. K.12; IEC 61663-2 and IEC 61643-311.

**Dimensional drawing in mm**

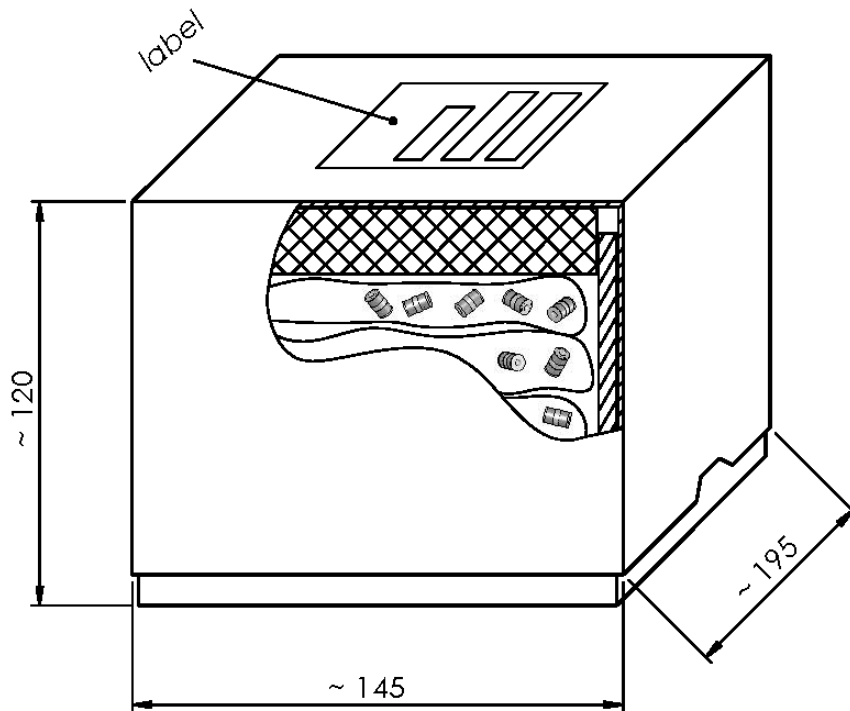


recommended pad outline

tin-plated

**Ordering code and packing advice**

*B88069X6700C253 = container with 2500 pcs.*


**Cautions and warnings**

- Surge arresters must not be operated directly in power supply networks.
- Surge arresters may become hot in case of longer periods of current stress (danger of burning).
- Surge arresters may be used only within their specified values. In case of overload, the lead contacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.

## Important notes

The following applies to all products named in this publication:

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2. We also point out that **in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified**. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
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