



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

2-electrode arrester

Series/Type: M51-A230X
Ordering code: B88069X2930C102
Version/Date: Issue 05 / 2013-11-27

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Features

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

Applications

- Branch exchange
- Line protection
- Subscriber protection
- Alarm system

Electrical specifications

DC spark-over voltage ^{1) 2)}	230 ± 20	V %
Impulse spark-over voltage at 100 V/μs - for 99% of measured values - typical values of distribution	< 550 < 500	V V
at 1 kV/μs - for 99% of measured values - typical values of distribution	< 650 < 600	V V
Service life		
10 operations 50 Hz, 1 s	5	A
1 operation 50 Hz, 0.18 s (9 cycles)	10	A
10 operations 8/20 μs	5	kA
1 operation 8/20 μs ³⁾	10	kA
1 operation 10/350 μs	0.5	kA
Insulation resistance at 100 V _{DC}	> 1	GΩ
Capacitance at 1 MHz	< 1	pF
Arc voltage at 1 A	~ 15	V
Glow to arc transition current	~ 0.5	A
Glow voltage	~ 60	V
Weight	~ 1	g
Operation and 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	

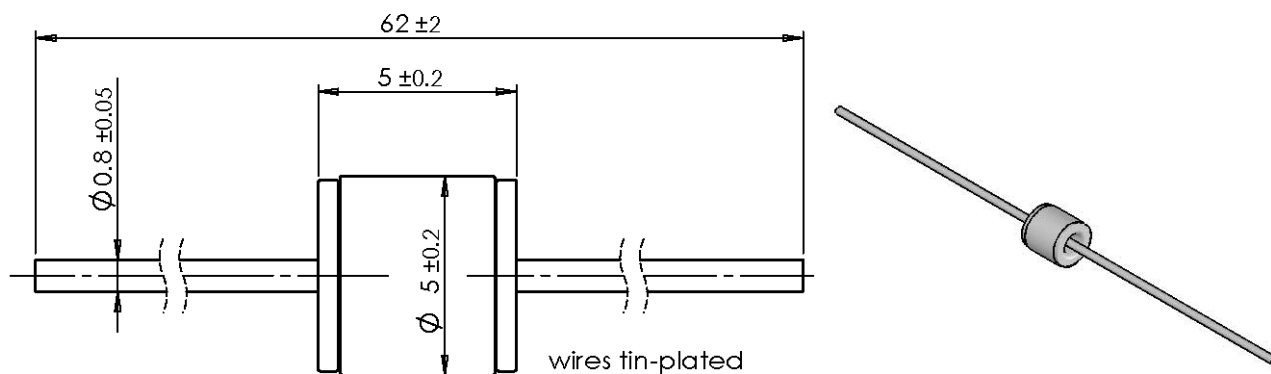
¹⁾ At delivery AQL 0.65 level II, DIN ISO 2859

²⁾ In ionized mode

³⁾ After service life DC spark-over voltage may exceed initial values but device will remain in a safe mode

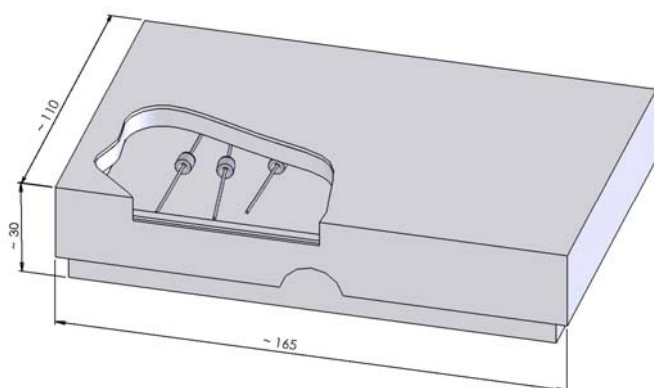
Terms in accordance with ITU-T Rec. K.12, IEC 61663-2 and IEC 61643-311

Dimensional drawing in mm



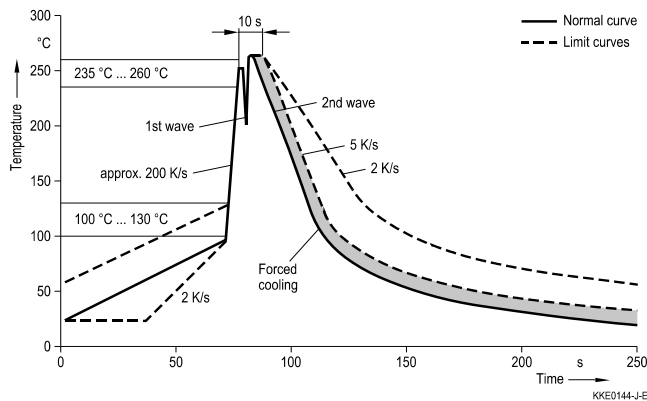
Ordering code and packing advice

B88069X2930C102 = 100 pcs. in container



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

- 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 head contacts may fail or the component may be destroyed.
- Surge arresters must be handled with care and must not be dropped.
- Damaged surge arresters must not be re-used.

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