Zertifikat *Certificate*

TÜVRheinland®

Zertifikat Nr. *Certificate No.*
R 60162043

Blatt *Sheet*
0001

Ihr Zeichen *Client Reference*	**Unser Zeichen** *Our Reference*	**Ausstellungsdatum** *Date of Issue*
	0001-G.K.-HU21TXIG 001	21.12.2022 *(day/mo/yr)*

Genehmigungsinhaber *License Holder*
Knowles (UK) Ltd
Hethel Engineering Centre,
Chapman Way, Hethel,
Norwich, Norfolk,
NR14 8FB
United Kingdom

Fertigungsstätte *Manufacturing Plant*
Knowles Electronics
(Suzhou) Co. Ltd.
No 20 Chunxing Road
Xiangcheng District
215131 Suzhou
P.R. China

Prüfzeichen *Test Mark*

TÜVRheinland® CERTIFIED
Type Approved
Safety
Regular Production
Surveillance
www.tuv.com
ID 1111250764

Geprüft nach *Tested acc. to*
EN 60384-14:2013+A1

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product ***(Product Identification)***

Lizenzentgelte - Einheit
License Fee - Unit

Capacitor C0G Ceramic Chip Capacitor

Model/Type reference:

Syfer family code	Class	Size	Capacitor range
1808bA25ddddefgS2X	X2	1808	10pF - 1,5nF
1812bA25ddddefgS2X	X2	1812	5,6pF - 2,2nF
1808bA25ddddefgSYX	Y2/X1	1808	5,6pF - 220pF
1812bA25ddddefgSYX	Y2/X1	1812	5,6pF - 820pF
2211bA25ddddefgSYX	Y2/X1	2211	4,7pF - 1nF
2215bA25ddddefgSYX	Y2/X1	2215	820pF - 1nF

Rated voltage (UR):
- for X2 type: 250 Vac / 1 kVdc
- for Y2/X1 type: 250 Vac / 305 Vac / 1 kVdc

Frequency: 50 Hz / 60 Hz
Dielectric: C0G
Temperature range: -55°C / +125°C
Capacitance tolerance: ±0,10pF; ±0,25pF; ±0,50pF; ±5%; ±10%; ±20%

Replaces certificate: R 60153659 0001

ANLAGE (Appendix): Annex 1 - Techn.data

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

Zertifizierungsstelle

TÜV Rheinland LGA Products GmbH

Gergely Bakos

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg
http://www.tuv.com/safety E-mail: markcheck@tuv.com
Fax: +49 221 806-3935

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1723920	HU21TXIG 001	2022-12-21

Technische Daten / Technical data

List of model variants and their ratings (keys for the type designation):

1808bA25ddddefgSYX, 1812bA25ddddefgSYX, 2211bA25ddddefgSYX, 2215bA25ddddefgSYX:

Example: …….. 1808 Y A25 0102 K J T SYX ***

Type No/Size ref

Protection

Termination

Y: FlexiCap™ termination base with Ni Barrier (100% matte tin plating). RoHS compliant.

H: FlexiCap™ termination base with Ni Barrier (Tin/ Lead plating with min 10% Lead).

J: Silver base with Nickel Barrier (100% Matte Tin Plating). RoHS compliant.

A: Silver base with Nickel Barrier (Tin/ Lead Plating with min 10% Lead)

Voltage: A25 = 250Vac (Y2)/305Vac X2

Capacitance Value

SYX = 305 Vac X1, 250Vac Y2 Safety Surge tested capacitors.

Packaging

T: 178mm (7") reel

R: 330mm (13") reel

B: Bulk pack - tubs

Dielectric/ Release codes

J: X7R S: X7R AECQ

G: C0G K: C0G AECQ

Capacitance Tolerance code

Stable class (X7R)		Ultra stable (C0G)	
± 5%	J	± 0.10 pF	B
± 10%	K	± 0.25 pF	C
± 20%	M	± 0.50 pF	D
		± 1%	F
		± 5%	G
		± 10%	J
		± 20%	K

First digit - 0 (or if cap < 10pF first significant figure of cap value)

Second digit - First significant figure of capacitance value (or if cap < 10pF "P" to signify units of picofarads)

Third digit - Second significant figure of capacitance value

Fourth digit - Number of zeros following. eg. 0102 = 1000pF

*** Represents a three-character suffix code, which will be allocated by Knowles when needed for specific customer requirements. This does not change the specifications defined hereon, complies with Knowles safety capacitor requriements and also is in accordance with IEC 60384-14

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1808bA25ddddefgS2X, 1812bA25ddddefgS2X:

Example: …….. 1808 Y A25 0102 K J T S2X ***

Type No/Size ref

Protection

Termination

Y: FlexiCap™ termination base with Ni Barrier (100% matte tin plating). RoHS compliant.

H: FlexiCap™ termination base with Ni Barrier (Tin/ Lead plating with min 10% Lead).

J: Silver base with Nickel Barrier (100% Matte Tin Plating). RoHS compliant.

A: Silver base with Nickel Barrier (Tin/ Lead Plating with min 10% Lead)

Voltage: A25 = 250Vac (X2)

Capacitance Value

First digit - 0 (or if cap < 10pF first significant figure of cap value)
Second digit - First significant figure of capacitance value (or if cap < 10pF "P" to signify units of picofarads)
Third digit - Second significant figure of capacitance value
Fourth digit - Number of zeros following. eg. 0102 = 1000pF

S2X = 250Vac X2 Safety tested Surge capacitors.

Packaging
T: 178mm (7") reel
R: 330mm (13") reel
B: Bulk pack - tubs

Dielectric/ Release codes
J: X7R S: X7R AECQ
G: C0G K: C0G AECQ

Capacitance Tolerance code

Stable class (X7R)		Ultra stable (C0G)	
± 5%	J	± 0.10 pF	B
± 10%	K	± 0.25 pF	C
± 20%	M	± 0.50 pF	D
		± 1%	F
		± 5%	G
		± 10%	J
		± 20%	K

*** Represents a three-character suffix code, which will be allocated by Knowles when needed for specific customer requirements. This does not change the specifications defined hereon, complies with Knowles safety capacitor requriements and also is in accordance with IEC 60384-14

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