



Film capacitors – EMI suppression capacitors (MKP)

Efficient Filtering – X2 / 305 V AC – B3292xE/F

Series/Type: **B32923, B32924, B32926, B32928**

Date: February 2008
Version: 1

© EPCOS AG 2008. Reproduction, publication and dissemination of this data sheet, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited

Recommended applications

- X2 class for interference suppression
- “Across-the-line” applications

Climatic

- Maximum operating temperature of 110 °C
- Climatic category (IEC 60068-1): 40/110/56

Construction

- Dielectric: Polypropylene (MKP)
- Plastic case (UL 94 V-0)
- Epoxy resin sealing (UL 94 V-0)

Features

- Capacitance value up to 45µF
- Very small dimensions
- Good self-healing properties
- High voltage capability

Terminals

- Parallel wire leads, lead-free tinned
- Standard lead lengths: 6-1mm
- Special lead lengths are available on request

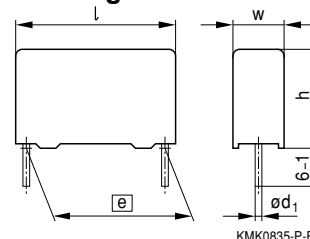
Marking

- Manufacturer's logo and lot number, date code, rated capacitance (coded), capacitance tolerance (code letter) and rated ac voltage (IEC),
- Series number, sub-class (X2), dielectric code (MKP), climatic category, passive flammability category, approvals.

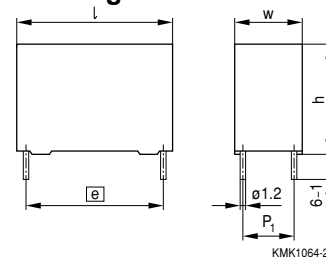
Delivery mode

- Bulk (untaped)
- Reel

Drawing A




Drawing B



Dimensions in mm




Dimensions

Lead spacing  ±0.4 (mm)	Lead diameter d ₁ (mm)	Type	Drawing
22.5	0.8	B32923	A
27.5	0.8	B32924	A
37.5	1.0	B32926	A
52.5	1.2	B32928	B

Marking example



Approvals


Standards	Certificate	Marks of Conformity
IEC 60384-14	40021331	
UL1283	E301966	
CSA C22.2 No.8	E301966	

¹⁾ approved by UL


Technical data

Maximum continuous AC voltage	310 V (50/60 Hz)
Rated AC voltage (IEC 60384-14)	305 V (50/60 Hz)
Maximum operating temperature T _{op,max}	+110 °C
DC test voltage	2121 V, 2 s
Dissipation factor tan δ (in 10 ⁻³) at 20 °C, (upper limit values)	At 1 kHz: 2
Insulation resistance R _{ins} or time constant τ = C _R · R _{ins} at 100 V DC, 20 °C, rel. humidity ≤ 65% and for 60 s (minimum “as delivered” values)	30 000 s
Passive flammability category to IEC 40 (CO) 752	B
Capacitance Tolerances (measured at 1 kHz)	±10% (K), ±20% (M)

dV/dt and K₀ values

	22.5	27.5	37.5	52.5
dV/dt (V/μs)	140	100	70	40
K ₀ (V ² /μs)	120414	86010	60207	34404

Film capacitors – EMI suppression capacitors (MKP)
Efficient Filtering – X2 / 305 V AC – B3292xE/F
B32923, B32924, B32926, B32928
Ordering codes and packing units

 ±0.4	C _R	Max. dimensions w × h × l	Ordering code	Ammo pack	Reel	Untaped
mm	µF	mm		pcs/unit	pcs/unit	pcs/unit
22.5	2.2	12.0 × 22.0 × 26.5	B32923E3225M***	–	–	450
	3.3	14.5 × 29.5 × 26.5	B32923E3335+***	–	–	260
27.5	2.2	11.0 × 21.0 × 31.5	B32924E3225M***	–	350	588
	2.2	12.5 × 21.5 × 31.5	B32924F3225K***	–	300	525
	3.3	14.0 × 24.5 × 31.5	B32924E3335M***	–	250	462
	3.3	15.0 × 24.0 × 31.5	B32924F3335K***	–	–	420
	4.7	18.0 × 27.5 × 31.5	B32924E3475M***	–	–	357
	4.7	16.0 × 32.0 × 31.5	B32924F3475K***	–	–	266
	5.6	18.0 × 33.0 × 31.5	B32924F3565+***	–	–	238
	6.8	21.0 × 31.0 × 31.5	B32924E3685M***	–	–	196
	6.8	22.0 × 36.5 × 31.5	B32924F3685K***	–	–	196
	8.2	22.0 × 36.5 × 31.5	B32924E3825M***	–	–	196
37.5	2.2	12.0 × 22.0 × 42.0	B32926E3225+***	–	–	405
	3.3	12.0 × 22.0 × 42.0	B32926E3335M***	–	–	405
	4.7	14.0 × 25.0 × 42.0	B32926E3475M***	–	–	345
	6.8	18.0 × 32.5 × 42.0	B32926E3685+***	–	–	180
	10	20.0 × 39.5 × 42.0	B32926E3106+***	–	–	160
	15	28.0 × 37.0 × 42.0	B32926E3156+***	–	–	55
	20	28.0 × 42.5 × 42.0	B32926E3206M***	–	–	110
	20	30.0 × 45.0 × 42.0	B32926F3206K***	–	–	50
52.5	25	30.0 × 45.0 × 57.5	B32928E3256+***	–	–	70
	30	30.0 × 45.0 × 57.5	B32928E3306+***	–	–	70
	40	35.0 × 50.0 × 57.5	B32928E3406+***	–	–	27
	45	35.0 × 50.0 × 57.5	B32928E3456M***	–	–	27

Bold types are preferred types. Further E series and intermediate capacitance values are available on request.

Composition of ordering code

+ = Capacitance tolerance code

M = ±20%

K = ±10%

*** = Packing code

000 = Untaped (lead length 6–1mm)

189 = Reel pack

Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application**. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
2. We also point out that **in individual cases, a malfunction of passive 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 a passive 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 a passive electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
4. In order to satisfy certain technical requirements, **some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous)**. Useful information on this will be found in our Material Data Sheets on the Internet (www.epcos.com/material). Should you have any more detailed questions, please contact our sales offices.
5. We constantly strive to improve our products. Consequently, **the products described in this publication may change from time to time**. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order. We also **reserve the right to discontinue production and delivery of products**. Consequently, we cannot guarantee that all products named in this publication will always be available. The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.
6. Unless otherwise agreed in individual contracts, **all orders are subject to the current version of the "General Terms of Delivery for Products and Services in the Electrical Industry" published by the German Electrical and Electronics Industry Association (ZVEI)**.
7. The trade names EPCOS, BAOKE, Alu-X, CeraDiode, CSSP, DSSP, MiniBlue, MKK, MLSC, MotorCap, PCC, PhaseCap, PhaseMod, SIFERRIT, SIFI, SIKOREL, SilverCap, SIMDAD, SIMID, SineFormer, SIOV, SIP5D, SIP5K, ThermoFuse, WindCap are **trademarks registered or pending** in Europe and in other countries. Further information will be found on the Internet at www.epcos.com/trademarks.