



Film capacitors – AC capacitors

Motor run capacitors

250 V; class B; 85 °C / 400 V; class B; 85 °C / 480 V; class C; 85 °C

Series/Type: **B32321/B32323 MotorCap™**

Date: July 2007
Version: 1.0

UL type (construction only)

Construction

- Dielectric: polypropylene film
- Plastic can and top UL 94 V2 material
- Dry type

Features

- Self-healing properties
- Low dissipation factor
- P0 safety class to IEC 60252-1 2001-02
- High insulation resistance
-  UL file E 183224 (construction only)

Typical applications

- For general sine wave applications, mainly as motor run capacitor

Terminals

- B32321 – Single Fast on: 6.3 × 0.8 mm
- B32323 – Double Fast on: 6.3 × 0.8 mm

Mounting parts (optional)

- Threaded stud at bottom of can (M8, max. torque = 5 Nm)
- Fast fixation for mounting into a hole of Ø 8 mm



Technical data and specifications

Reference standards	IEC 60252-1 2001-02 / UL 810
Safety class according IEC 60252-1 2001-02	P0
Life expectancy to IEC 60252 2001	250 V / 85 °C: 10,000 h (class B) 400 V / 85 °C: 10,000 h (class B) 480 V / 85 °C: 3,000 h (class C)
UL 810 file E 183224 for Nashik and Gravatai plant	Construction only
Rated capacitance C_R	See dimensions table
Tolerance	±5%
Rated voltage V_R	250 V AC, 400 V AC, 480 V AC
Rated frequency f_R	50 / 60 Hz

Film capacitors – AC capacitors

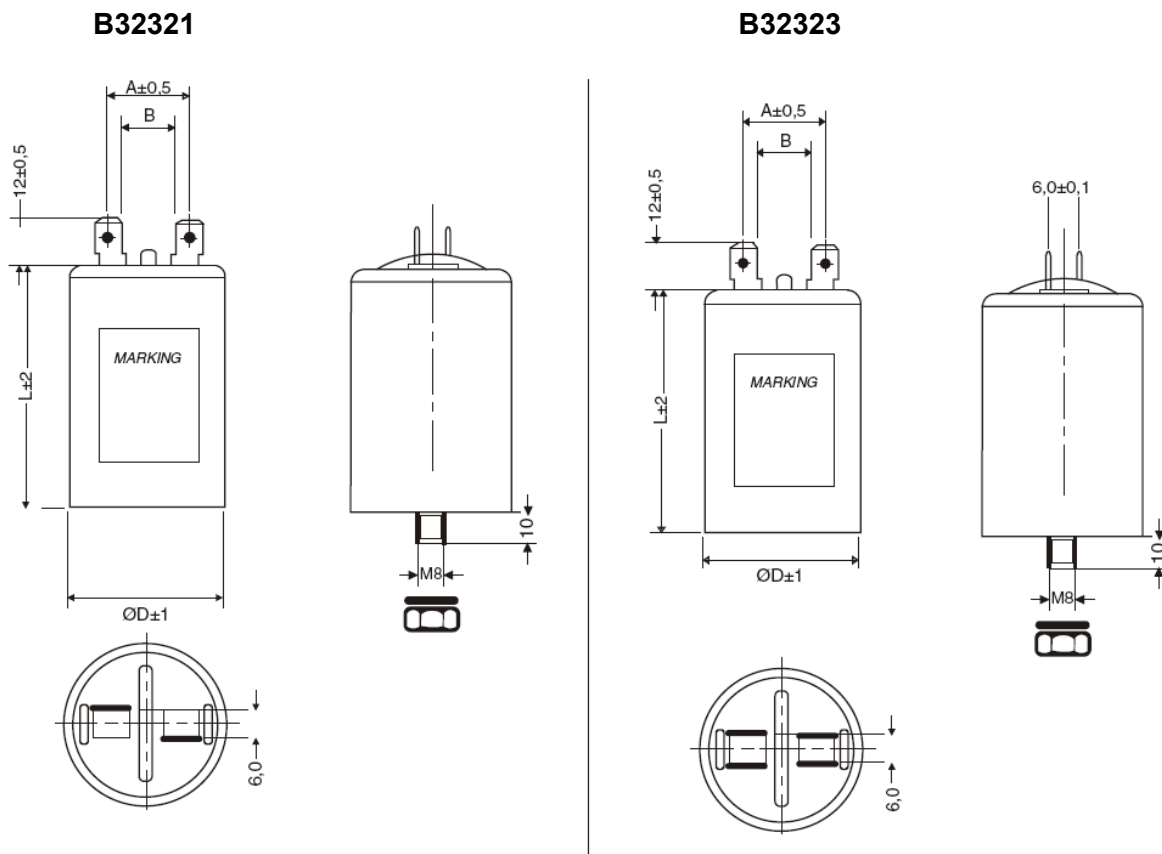
Motor run capacitors

B32321/B32323 MotorCap™

Maximum ratings	
Maximum permissible voltage $V_{\max}$	$1.1 \cdot V_R$ (V_R = Rated voltage)
Maximum permissible current $I_{\max}$	$1.3 \cdot I_R$ (I_R = Rated current)
Test data	
AC test voltage terminal to terminal V_{TT}	$2 \cdot V_R$, 2 s (routine test) $2 \cdot V_R$, 60 s (type test)
Insulation resistance R_{ins} or time constant τ at 20 °C, rel. humidity $\leq 65\%$ (minimum as delivered values)	3,000 s
Dissipation factor $\tan \delta$ at 20 °C	$\leq 1.0 \cdot 10^{-3}$ (120 Hz)
Maximum rate of voltage rise $dV/dt_{\max}$	10 V/ μs
Climatic data	
Climatic category	25/085/21 to IEC 60068-1
Lower category $T_{\min}$	-25 °C
Upper category $T_{\max}$	+85 °C
Damp heat test t_{test}	21 days
Mechanical and thermal properties	
Ball pressure test to IEC 60309-1 sec. 27.3	20 N at 125 °C
Plastic can and top disk material	UL 94 V2 minimum
■ UL 94 V2 compatible ■ Glow wire test to IEC 60695-2-1/0 and -2-1/1 Test temp 550 °C for $I_R \leq 0.5$ A Test temp 750 °C for $I_R > 0.5$ A	Self extinguish within 30 seconds of withdrawing the glow wire and without igniting wrapping tissue.
Tracking test to IEC 60112 solution A	> 250 V
Compatibility to RoHS	
Compliance to directive 2002/95/EC	

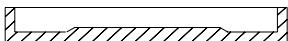
Approvals		
VDE EN 60252		
400 V / 85 °C:	10,000 h (class B)	Approved
480 V / 85°C:	3,000 h (class C)	Approved
UL 810 E183224		
250 V		Approved
400 V		Approved
480 V		Approved

Dimensional drawings

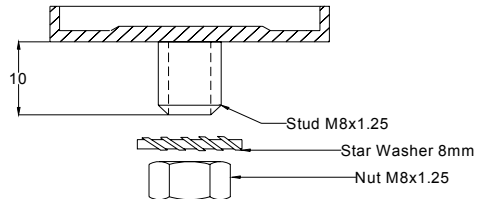


Mounting options

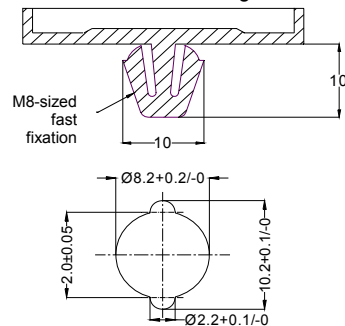
= 1: Can without mounting



= 3: Can with M8 bolt



= 5: Fast fix mounting



Ordering codes and packing units

V _R V AC	C _R μF	Max. dimensions d × l (mm) B32321	Max. dimensions d × l (mm) B32323	Ordering code	Packing units pcs.
250	2	25 × 58	30 × 62	B3232*C1205J0#0	112
	3	25 × 58	30 × 62	B3232*C1305J0#0	112
	4	25 × 58	30 × 62	B3232*C1405J0#0	112
	5	25 × 58	30 × 62	B3232*C1505J0#0	112
	6	25 × 58	30 × 62	B3232*C1605J0#0	112
	7	25 × 58	30 × 62	B3232*C1705J0#0	112
	8	25 × 58	30 × 62	B3232*C1805J0#0	112
	9	30 × 62	30 × 62	B3232*C1905J0#0	112
	10	30 × 62	30 × 62	B3232*C1106J0#0	112
	12	30 × 62	30 × 62	B3232*C1126J0#0	112
	14	30 × 62	30 × 62	B3232*C1146J0#0	112
	15	30 × 62	30 × 62	B3232*C1156J0#0	112
	16	35 × 62	35 × 62	B3232*C1166J0#0	84
	18	35 × 62	35 × 62	B3232*C1186J0#0	84
	20	35 × 62	35 × 62	B3232*C1206J0#0	84
	22	35 × 62	35 × 62	B3232*C1226J0#0	84
	25	35 × 71	35 × 71	B3232*C1256J0#0	84
	30	35 × 71	35 × 71	B3232*C1306J0#0	84
	35	40 × 71	40 × 71	B3232*C1356J0#0	60
	40	40 × 71	40 × 71	B3232*C1406J0#0	60
	45	40 × 71	40 × 71	B3232*C1456J0#0	60
	50	40 × 95	40 × 98	B3232*C1506J0#0	60
	55	40 × 95	40 × 98	B3232*C1556J0#0	60
	60	40 × 95	40 × 98	B3232*C1606J0#0	60

Film capacitors – AC capacitors
Motor run capacitors
B32321/B32323 MotorCap™

V _R V AC	C _R μF	Max. dimensions d × l (mm) B32321	Max. dimensions d × l (mm) B32323	Ordering code	Packing units pcs.
400	2	25 × 58	30 × 62	B3232*B4205J0#0	112
	3	25 × 58	30 × 62	B3232*B4305J0#0	112
	4	25 × 58	30 × 62	B3232*B4405J0#0	112
	5	30 × 62	30 × 62	B3232*B4505J0#0	112
	6	30 × 62	30 × 62	B3232*B4605J0#0	112
	7	35 × 62	35 × 62	B3232*B4705J0#0	84
	8	35 × 62	35 × 62	B3232*B4805J0#0	84
	9	35 × 62	35 × 62	B3232*B4905J0#0	84
	10	35 × 62	35 × 62	B3232*B4106J0#0	84
	12	35 × 71	35 × 71	B3232*B4126J0#0	84
	14	35 × 71	35 × 71	B3232*B4146J0#0	84
	15	40 × 71	40 × 71	B3232*B4156J0#0	60
	16	40 × 71	40 × 71	B3232*B4166J0#0	60
	18	40 × 71	40 × 71	B3232*B4186J0#0	60
	20	40 × 71	40 × 71	B3232*B4206J0#0	60
	22	40 × 71	40 × 71	B3232*B4226J0#0	60
	25	40 × 95	40 × 95	B3232*B4256J0#0	60
	30	40 × 95	40 × 95	B3232*B4306J0#0	60
	35	45 × 95	45 × 95	B3232*B4356J0#0	45
	40	45 × 95	45 × 95	B3232*B4406J0#0	45
	45	45 × 95	45 × 95	B3232*B4456J0#0	45
	50	45 × 95	45 × 98	B3232*B4506J0#0	45
	55	45 × 95	45 × 98	B3232*B4556J0#0	45
	60	45 × 95	45 × 98	B3232*B4606J0#0	45

Film capacitors – AC capacitors

Motor run capacitors

B32321/B32323 MotorCap™

VR	CR	Max. dimensions d × l (mm)	Max. dimensions d × l (mm)	Ordering code	Packing units
V AC	μF	B32321	B32323		pcs.
480	3	30 × 62	30 × 62	B3232*B7305J0#0	112
	4	30 × 62	30 × 62	B3232*B7405J0#0	112
	5	30 × 62	30 × 62	B3232*B7505J0#0	112
	6	35 × 62	35 × 62	B3232*B7605J0#0	84
	7	35 × 71	35 × 71	B3232*B7705J0#0	84
	8	35 × 71	35 × 71	B3232*B7805J0#0	84
	9	35 × 71	35 × 71	B3232*B7905J0#0	84
	10	40 × 71	40 × 71	B3232*B7106J0#0	45
	12	40 × 71	40 × 71	B3232*B7126J0#0	45
	15	45 × 71	45 × 71	B3232*B7156J0#0	45
	18	45 × 71	45 × 71	B3232*B7186J0#0	45
	20	45 × 71	45 × 71	B3232*B7206J0#0	45
	22	45 × 71	45 × 71	B3232*B7226J0#0	45
	25	45 × 95	45 × 95	B3232*B7256J0#0	45
	30	45 × 95	45 × 95	B3232*B7306J0#0	45
	35	45 × 95	45 × 95	B3232*B7356J0#0	45
	40	45 × 95	45 × 95	B3232*B7406J0#0	45

Composition of ordering code:

*: Terminals

- 21 single fast on terminals
- 23 double fast on terminals

#: Construction

- 1 plastic can
- 3 plastic can with M8 bolt
- 5 plastic can with fast fixation device, available for diameters 30 mm, 32 mm and 35 mm, others on request

 Please read "Applications warning, installation and maintenance instructions" and the "General Safety Data Sheet for Power Capacitors" issued by ZVEI, which are available on the internet at www.epcos.com/ac_capacitors, to ensure optimum performance and to prevent products from failing, and in worst case, bursting and fire. Information given in the data sheet reflects typical specifications. You are kindly requested to approve our product specifications or request our approval for your specification before ordering.

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 lifesaving 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.
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, MiniBlue, MKK, MLSC, MotorCap, PCC, PhaseCap, PhaseMod, 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.