Film capacitors – AC capacitors

Motor run capacitors

Series/Type: B32350/B32352 – MotorCap™

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B32352A4305J030		2013-02-08	2013-03-08	2013-08-08

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

Construction

- Dielectric polypropylene film
- Electrode: segmented metallized film
- Dry type

Features

- Self-healing properties
- Low dissipation factor
- P2 safety class to IEC 60252-1 2001-02
- High insulation resistance
- UL file E 106388 (component approval)
- IEC/EN 60335-1 compliant

Typical applications

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

Terminals

- B32350 – single fast-on: 6.3 × 0.8 mm
- B32352 – double fast-on: 6.3 × 0.8 mm

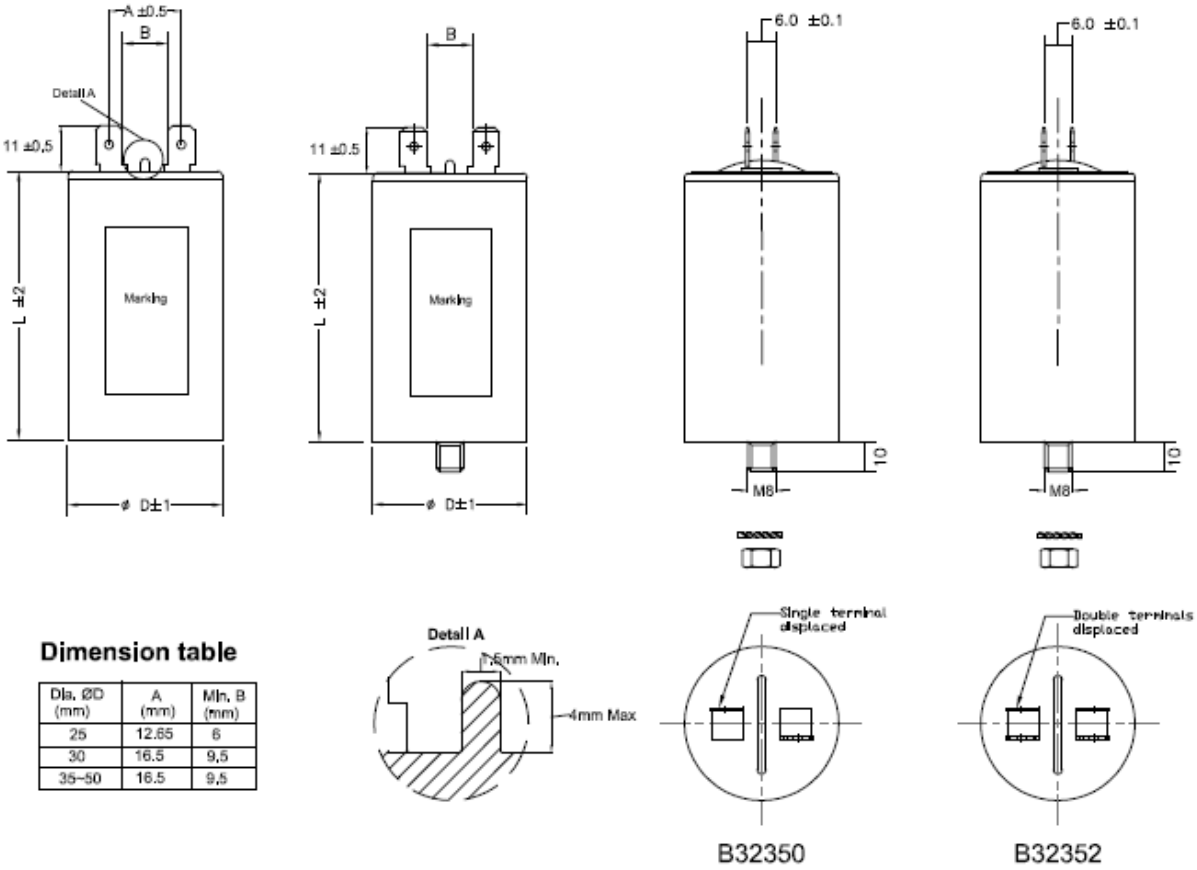
Mounting parts (optional)

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

Technical data and specifications		
Reference standards	IEC 60252-1 2001-02 / EN 60252 2001	
Safety class to IEC 60252-1 2001-02	P2	
Life expectancy to IEC 60252 2001	400 V/85 °C: 30 000 h (class A) 450 V/85 °C: 10 000 h (class B)	
Rated capacitance C_R	See dimensions table	
Tolerance	±5%	
Rated voltage V_R	400, 450 V AC	
Permitted capacitance $\Delta C/C$	≤ 3 %	
Rated frequency f_R	50/60 Hz	
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 · V_R, 2 s (routine test) 2 · V_R, 60 s (type test)
AC test voltage terminals to can V_{TC}	2 kV AC, 2 s (routine test) 2 kV AC, 60 s (type test)
Insulation resistance R_{ins} or time constant τ at 20 °C, rel. humidity ≤ 65% (minimum as-delivered values)	3 000 s
Dissipation factor tan δ at 20 °C	≤ 1.0 · 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	Compliant to EN 60252/60335-1
■ UL 94 V2 compatible ■ Glow wire test to IEC 60695-2-1/0 and -2-1/1 Test temperature 550 °C for I_R ≤ 0.5 A Test temperature 750 °C for I_R > 0.5 A ■ Part is compatible to EN 60335-1	Self-extinguish within 2 seconds of withdrawing glow wire without igniting wrapping tissue to GWIT
Tracking test to IEC 60112 solution A	> 250 V
Compatibility to RoHS	
Compliance to directive 2002/95/EC	RoHS compatible
Approvals	
VDE – 400 V/85 °C: 30 000 h (class A)	Approved
VDE – 450 V/85 °C: 10 000 h (class B)	Approved
C UL US UL 810 files E106388	Approved Component 10000 AFC up to 450 V

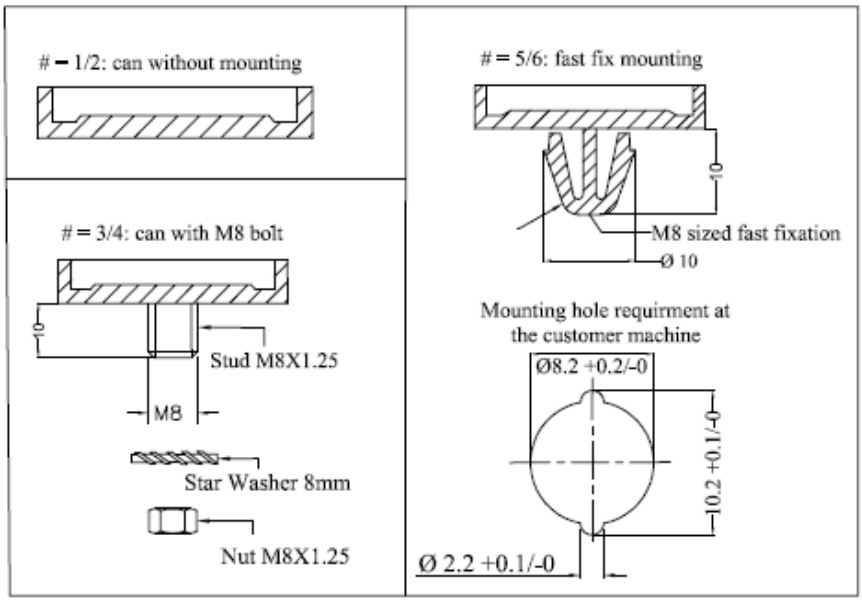
Dimensional drawings



Dimension table

Dia. ØD (mm)	A (mm)	Min. B (mm)
25	12.65	6
30	16.5	9,5
35–50	16.5	9,5

Mounting options:



Ordering codes and packing units for B32350-Series (singe fast-on connector)

V_R V AC	C_R µF	Dimensions d × h mm	Ordering code	Packing units
400 / 450	2	25 × 58	B32350A4205J0#0	112
	2.5	25 × 58	B32350A4255J0#0	112
	3	30 × 56*	B32350A4305J0#0	112
	3.15	30 × 56*	B32350A4315J5#0	112
	4	30 × 56*	B32350A4405J0#0	112
	5	30 × 56*	B32350A4505J0#0	112
	6	35 × 56*	B32350A4605J0#0	84
	6.3	35 × 56*	B32350A4635J0#0	84
	7	35 × 56*	B32350A4705J0#0	84
	7.5	35 × 56*	B32350A4755J0#0	84
	8	35 × 71	B32350A4805J0#0	84
	9	35 × 71	B32350A4905J0#0	84
	10	35 × 71	B32350A4106J0#0	84
	11	40 × 72	B32350A4116J0#0	60
	12	40 × 72	B32350A4126J0#0	60
	12.5	40 × 72	B32350A4126J5#0	60
	14	45 × 72	B32350A4146J0#0	45
	15	45 × 72	B32350A4156J0#0	45
	16	45 × 96	B32350A4166J0#0	45
	17.5	45 × 96	B32350A4176J5#0	45
	18	50 × 96	B32350A4186J0#0	32
	20	50 × 96	B32350A4206J0#0	32

* In case of construction with M8, bolt and locking clip height (dimension L) will be increased by 6 mm

Composition of ordering code

#: construction

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

Ordering codes and packing units for B32352-Series (double fast-on connector)

V_R	C_R	Dimensions d × h	Ordering code	Packing units
V AC	µF	mm		
400 / 450	2	30 × 56*	B32352A4205J0#0	112
	2.5	30 × 56*	B32352A4255J0#0	112
	3	30 × 56*	B32352A4305J0#0	112
	3.15	30 × 56*	B32352A4315J5#0	112
	4	30 × 56*	B32352A4405J0#0	112
	5	30 × 56*	B32352A4505J0#0	112
	6	35 × 56*	B32352A4605J0#0	84
	6.3	35 × 56*	B32352A4635J0#0	84
	7	35 × 56*	B32352A4705J0#0	84
	7.5	35 × 56*	B32352A4755J0#0	84
	8	35 × 71	B32352A4805J0#0	84
	9	35 × 71	B32352A4905J0#0	84
	10	35 × 71	B32352A4106J0#0	84
	11	40 × 72	B32352A4116J0#0	60
	12	40 × 72	B32352A4126J0#0	60
	12.5	40 × 72	B32352A4126J5#0	60
	14	45 × 72	B32352A4146J0#0	45
	15	45 × 72	B32352A4156J0#0	45
	16	45 × 96	B32352A4166J0#0	45
	17.5	45 × 96	B32352A4176J5#0	45
	18	50 × 96	B32352A4186J0#0	32
	20	50 × 96	B32352A4206J0#0	32

* In case of construction with M8 bolt height (dimension L) will be increased by 6 mm

Composition of ordering code

#: construction

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

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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 we are 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 a product with the properties described in the product specification is suitable for use in a particular customer application.
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