Film capacitors – AC capacitors

Motor run capacitors

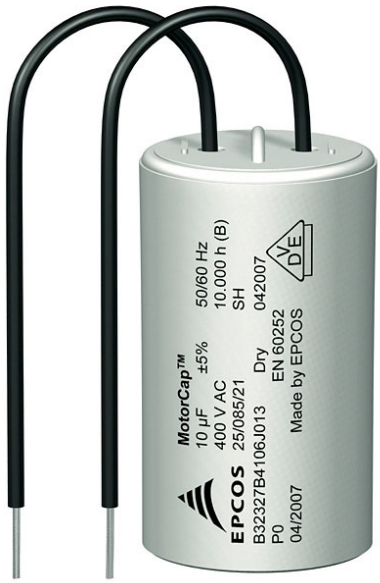
250 V; class B; 85 °C / 400 V; class B; 85 °C / 480 V; class C; 85 °C

Series/Type: **B32327 – MotorCap™**

Date: July 2007
Version: 1.0

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
- IEC/EN 60335-1 compatible on request

Typical applications

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

Terminals

- Tinned copper wire
- Variable wire length

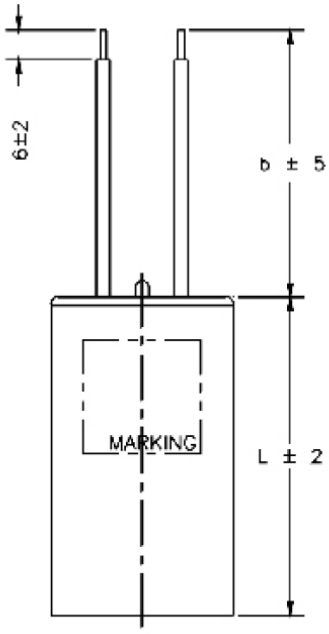
Mounting parts (optional)

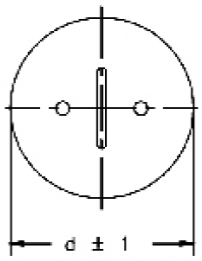
- Threaded stud at bottom of can (M8, max. torque = 5 Nm)
- Fast fixation for mounting into a hole of Ø 8 mm

Technical data and specifications	
Reference standards	IEC 60252-1 2001-02 / EN 60252 2001
Safety class to 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)
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
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 U_{TT}	2 · V_R , 2 s (routine test) 2 · V_R , 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
■ UL 94 V2 compatible ■ Glow wire test to IEC 60695-2-1/0 and –2-1/1 Test temp 550 °C for I_R ≤ 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	RoHS compatible
Approvals	
VDE	
400 V/85 °C: 10,000 h (class B) for 1.5 µF ... 50 µF	Approved
480 V/85 °C: 3,000 h (class C) for 3 µF ... 35 µF	Approved

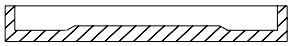
Dimensional drawing



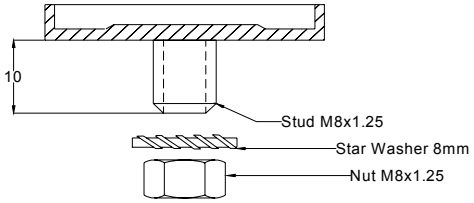


Mounting options

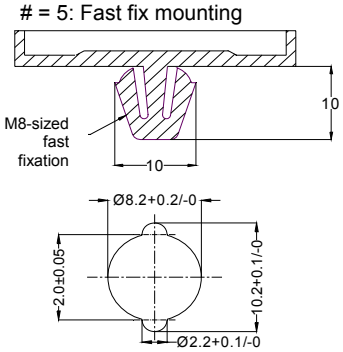
= 1: Can without mounting



= 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	Ordering code	Packing units pcs.
250	1.5	25 × 58	B32327C1155J0#*	112
	2	25 × 58	B32327C1205J0#*	112
	3	25 × 58	B32327C1305J0#*	112
	4	25 × 58	B32327C1405J0#*	112
	5	25 × 58	B32327C1505J0#*	112
	6	25 × 58	B32327C1605J0#*	112
	7	25 × 58	B32327C1705J0#*	112
	7.5	25 × 58	B32327C1755J0#*	112
	8	25 × 58	B32327C1805J0#*	112
	9	30 × 62	B32327C1905J0#*	112
	10	30 × 62	B32327C1106J0#*	112
	12	30 × 62	B32327C1126J0#*	112
	14	30 × 62	B32327C1146J0#*	112
	15	30 × 62	B32327C1156J0#*	112
	16	30 × 62	B32327C1166J0#*	112
	18	30 × 62	B32327C1186J0#*	112
	20	35 × 62	B32327C1206J0#*	84
	22	35 × 62	B32327C1226J0#*	84
	25	35 × 71	B32327C1256J0#*	84
	30	35 × 71	B32327C1306J0#*	84
	35	40 × 71	B32327C1356J0#*	60
	40	40 × 71	B32327C1406J0#*	60
	45	40 × 71	B32327C1456J0#*	60
	50	40 × 95	B32327C1506J0#*	60
	55	40 × 95	B32327C1556J0#*	60
	60	40 × 95	B32327C1606J0#*	60

V_R V AC	C_R µF	Max. dimensions d × l mm	Ordering code	Packing units pcs.
400	1.5	25 × 58	B32327B4155J0#*	112
	2	25 × 58	B32327B4205J0#*	112
	3	25 × 58	B32327B4305J0#*	112
	4	25 × 58	B32327B4405J0#*	112
	5	30 × 62	B32327B4505J0#*	112
	6	30 × 62	B32327B4605J0#*	112
	7	35 × 62	B32327B4705J0#*	84
	7.5	35 × 62	B32327B4755J0#*	84
	8	35 × 62	B32327B4805J0#*	84
	9	35 × 62	B32327B4905J0#*	84
	10	35 × 62	B32327B4106J0#*	84
	12	35 × 71	B32327B4126J0#*	84
	14	35 × 71	B32327B4146J0#*	84
	15	40 × 71	B32327B4156J0#*	60
	16	40 × 71	B32327B4166J0#*	60
	18	40 × 71	B32327B4186J0#*	60
	20	40 × 71	B32327B4206J0#*	60
	22	40 × 71	B32327B4226J0#*	60
	25	40 × 95	B32327B4256J0#*	60
	30	40 × 95	B32327B4306J0#*	60
	35	45 × 95	B32327B4356J0#*	45
	40	45 × 95	B32327B4406J0#*	45
	45	50 × 95	B32327B4456J0#*	32
	50	50 × 95	B32327B4506J0#*	32
	55	50 × 95	B32327B4556J0#*	32
	60	50 × 95	B32327B4606J0#*	32

V_R V AC	C_R µF	Max. dimensions d × l mm	Ordering code	Packing units pcs.
480	3	30 × 62	B32327B7305J0#*	112
	4	30 × 62	B32327B7405J0#*	112
	6	35 × 62	B32327B7605J0#*	84
	7.5	35 × 62	B32327B7755J0#*	84
	8	35 × 71	B32327B7805J0#*	84
	10	40 × 71	B32327B7106J0#*	45
	12	40 × 71	B32327B7126J0#*	45
	15	45 × 71	B32327B7156J0#*	45
	16	45 × 71	B32327B7166J0#*	45
	20	45 × 71	B32327B7206J0#*	45
	22	45 × 71	B32327B7226J0#*	45
	25	45 × 95	B32327B7256J0#*	45
	30	45 × 95	B32327B7306J0#*	45
	35	45 × 95	B32327B7356J0#*	32
	40	45 × 120	B32327B7406J0#*	45
	45	50 × 120	B32327B7456J0#*	32
	50	50 × 120	B32327B7506J0#*	32

Composition of ordering code:

#: 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

*: Wire length (dimension ‘b’ in drawing)

3 100 mm
7 200 mm
9 250 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.

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