Film capacitors – AC capacitors

EPCOS Feida Motor Run Capacitors

Series/Type:	**CBB66 - Single Capacitor P2 Aluminum Can Oval**
Ordering code:	**B33360 / 61/ 62 / 64**
Date:	November 2009
Version:	1

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Construction

- Dielectric: polypropylene film
- Electrode: Metallized film
- Aluminum can, metal top
- Filling material: Vegetable oil, PCB free
- Insulator material as per IEC 60335-1

Features

- Self-healing properties
- Low dissipation factor
- Overpressure disconnection device
- Highest safety level P2 to IEC 60252-1 2001-02
- High insulation resistance
- IEC/EN 60335 compatible

Typical applications

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

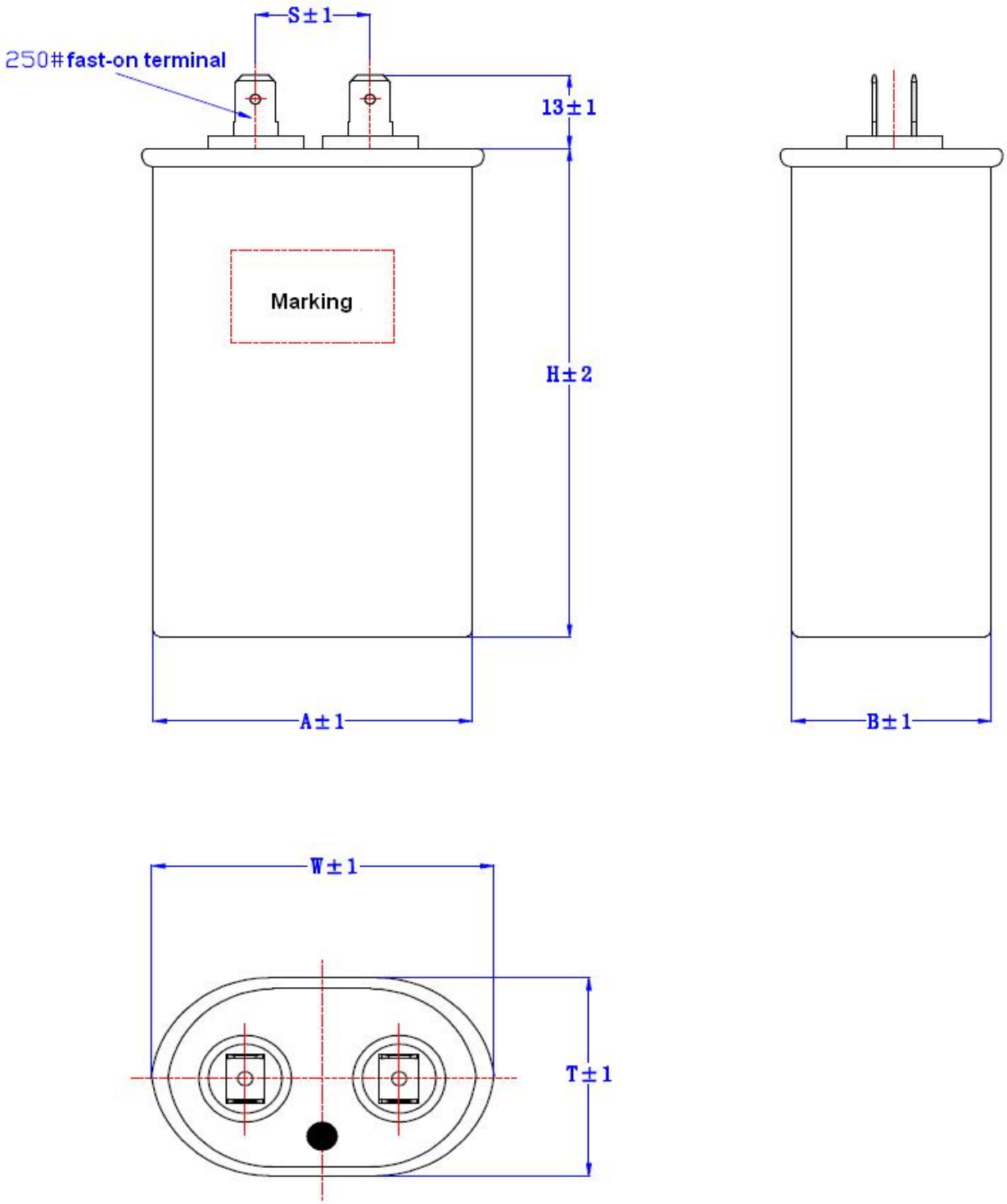
Terminals

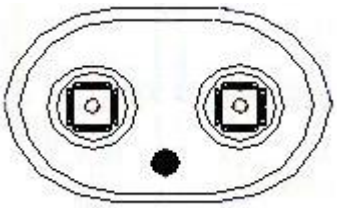
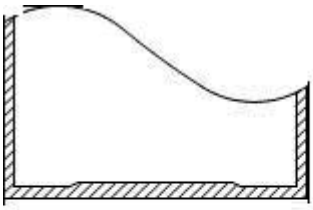
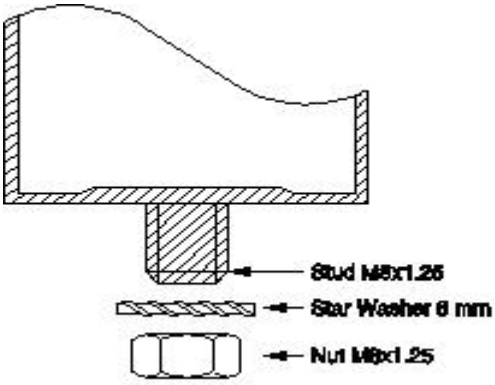
- 1+1, 2+2, 2+4, 4+4 fast-on terminal #250 style

Technical data and specifications	
Reference standards	UL 810 / IEC 60252-1 / EIA 456 A Jan.89
Safety class to IEC 60252-1 2001-02	P2
Life expectancy to IEC 60252 2001	250 … 450V: 10 000h (Class B)
Life expectancy to EIA 456 A Jan. 89	60 000 hours at 95% survival rate
Rated capacitance C_R	3…..50µF
Tolerance	±5% other tolerances on request
Rated voltage V_R	250 / 370 / 400 / 450VAC
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}	$2.0 \cdot V_R$, 10 s
Insulation voltage terminals to case	3000 V AC, 2 s
Insulation resistance R_{ins} or time constant τ at 20 °C, rel. Humidity ≤ 65% (minimum as-delivered values)	10000 MΩ • μF
Dissipation factor tan δ at 20 °C	$\leq 2.0 \cdot 10^{-3}$ (100 Hz)
Maximum rate of voltage rise dV/dt_{max}	10 V/μs
Climatic data	
Climatic category	40/070/21
Lower category T_{min}	-40 °C
Upper category T_{max}	+70 °C
Damp heat test t_{test}	21 days
Mechanical and thermal properties of insulation terminal material	
Ball pressure test to IEC 60309-1 sec. 27.3	20 N at 125°C
UL 94 specification	V0 compatible
Glow wire test to IEC60335-1 / IEC 60695-2-1/1 Test temperature 550 °C for $I_R \leq 0.5$A and 750 °C for $I_R > 0.5$A	Self-extinguishing within 2 seconds of withdrawing glow wire
Compatibility to RoHS	
Compliance to directive 2002/95/EC	RoHS compatible
Approvals: See table for approved ratings	
C UL US UL 810 files E241095 **250/300/370/400450Vac**	Protected up to 5000 AFC -10,000 AFC under approval

Dimensional drawings CBB 66 (B3336*) series



Terminal option	
0 1+1 fast-on terminals 1 2+4 fast-on terminals 2 2+2 fast-on terminals 4 4+4 fast-on terminals 	
50 – Flat Oval Aluminum Can 	70 – M8 bolt: Oval Aluminum Can 

Ordering codes and packing units

V_R V AC	C_R µF	W mm	T mm	S mm	Dimensions B×A×H mm	Ordering code	Pack-ing units pcs	UL
250	3	54.5	34.5	20	31.5×51.5×55	B3336*-A1305-J0##	120	
	4	54.5	34.5	20	31.5×51.5×55	B3336*-A1405-J0##	120	
	5	54.5	34.5	20	31.5×51.5×55	B3336*-A1505-J0##	120	
	6	54.5	34.5	20	31.5×51.5×55	B3336*-A1605-J0##	120	
	7	54.5	34.5	20	31.5×51.5×55	B3336*-A1705-J0##	120	
	8	54.5	34.5	20	31.5×51.5×55	B3336*-A1805-J0##	120	
	10	54.5	34.5	20	31.5×51.5×65	B3336*-A1106-J0##	120	
	12	54.5	34.5	20	31.5×51.5×65	B3336*-A1126-J0##	120	
	15	54.5	34.5	20	31.5×51.5×65	B3336*-A1156-J0##	120	
	20	54.5	34.5	20	31.5×51.5×75	B3336*-A1206-J0##	120	
	25	54.5	34.5	20	31.5×51.5×75	B3336*-A1256-J0##	120	
	30	54.5	34.5	20	31.5×51.5×75	B3336*-A1306-J0##	120	
	35	73	48	20	45×70×65	B3336*-A1356-J0##	60	
	40	73	48	20	45×70×75	B3336*-A1406-J0##	60	
	45	73	48	20	45×70×75	B3336*-A1456-J0##	60	
	50	73	48	20	45×70×75	B3336*-A1506-J0##	60	
370	3	54.5	34.5	20	31.5×51.5×55	B3336*-A3305-J0##	120	
	4	54.5	34.5	20	31.5×51.5×55	B3336*-A3405-J0##	120	
	5	54.5	34.5	20	31.5×51.5×55	B3336*-A3505-J0##	120	
	6	54.5	34.5	20	31.5×51.5×55	B3336*-A3605-J0##	120	
	7	54.5	34.5	20	31.5×51.5×55	B3336*-A3705-J0##	120	
	8	54.5	34.5	20	31.5×51.5×55	B3336*-A3805-J0##	120	
	10	54.5	34.5	20	31.5×51.5×65	B3336*-A3106-J0##	120	
	12	54.5	34.5	20	31.5×51.5×65	B3336*-A3126-J0##	120	
	15	54.5	34.5	20	31.5×51.5×75	B3336*-A3156-J0##	120	
	20	73	48	20	45×70×65	B3336*-A3206-J0##	60	
	25	73	48	20	45×70×65	B3336*-A3256-J0##	60	
	30	73	48	20	45×70×75	B3336*-A3306-J0##	60	
	35	73	48	20	45×70×75	B3336*-A3356-J0##	60	
	40	73	48	20	45×70×85	B3336*-A3406-J0##	60	
	45	73	48	20	45×70×100	B3336*-A3456-J0##	60	
	50	73	48	20	45×70×100	B3336*-A3506-J0##	60	

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V_R V AC	C_R µF	W mm	T mm	S mm	Dimensions B×A×H mm	Ordering code	Pack-ing units pcs	UL
400	3	54.5	34.5	20	31.5×51.5×55	B3336*-A4305-J0##	120	
	4	54.5	34.5	20	31.5×51.5×55	B3336*-A4405-J0##	120	
	5	54.5	34.5	20	31.5×51.5×55	B3336*-A4505-J0##	120	
	6	54.5	34.5	20	31.5×51.5×55	B3336*-A4605-J0##	120	
	7	54.5	34.5	20	31.5×51.5×55	B3336*-A4705-J0##	120	
	8	54.5	34.5	20	31.5×51.5×55	B3336*-A4805-J0##	120	
	10	54.5	34.5	20	31.5×51.5×65	B3336*-A4106-J0##	120	
	12	54.5	34.5	20	31.5×51.5×65	B3336*-A4126-J0##	120	
	15	54.5	34.5	20	31.5×51.5×75	B3336*-A4156-J0##	120	
	20	73	48	20	45×70×65	B3336*-A4206-J0##	60	
	25	73	48	20	45×70×65	B3336*-A4256-J0##	60	
	30	73	48	20	45×70×75	B3336*-A4306-J0##	60	
	35	73	48	20	45×70×75	B3336*-A4356-J0##	60	
	40	73	48	20	45×70×85	B3336*-A4406-J0##	60	
	45	73	48	20	45×70×100	B3336*-A4456-J0##	60	
	50	73	48	20	45×70×100	B3336*-A4506-J0##	60	
450	3	54.5	34.5	20	31.5×51.5×55	B3336*-A6305-J0##	120	
	4	54.5	34.5	20	31.5×51.5×55	B3336*-A6405-J0##	120	
	5	54.5	34.5	20	31.5×51.5×55	B3336*-A6505-J0##	120	
	6	54.5	34.5	20	31.5×51.5×55	B3336*-A6605-J0##	120	
	7	54.5	34.5	20	31.5×51.5×65	B3336*-A6705-J0##	120	
	8	54.5	34.5	20	31.5×51.5×65	B3336*-A6805-J0##	120	
	10	54.5	34.5	20	31.5×51.5×75	B3336*-A6106-J0##	120	
	12	54.5	34.5	20	31.5×51.5×75	B3336*-A6126-J0##	120	
	15	73	48	20	45×70×65	B3336*-A6156-J0##	60	
	20	73	48	20	45×70×65	B3336*-A6206-J0##	60	
	25	73	48	20	45×70×75	B3336*-A6256-J0##	60	
	30	73	48	20	45×70×85	B3336*-A6306-J0##	60	
	35	73	48	20	45×70×100	B3336*-A6356-J0##	60	
	40	73	48	20	45×70×100	B3336*-A6406-J0##	60	
	45	93	51	20	48×90×75	B3336*-A6456-J0##	45	
	50	93	51	20	48×90×85	B3336*-A6506-J0##	45	

1. For terminals replace (*) by:
   - 0 1+1 fast-on terminals
   - 1 2+4 fast-on terminals
   - 2 2+2 fast-on terminals
   - 4 4+4 fast-on terminals

2. For construction of mouting device replace (##) by:
   - 50 – Flat Oval Aluminum Can
   - 70 – M8 bolt: Oval Aluminum Can

⚠ Please read “Applications warning, installation and maintenance instructions” and the “ZVEI - General safety recommendations for power capacitors”, 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.

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