

Type 450C 105 °C Ultra-Ripple, Long-life, Inverter Grade, Radial Leaded

The Ultimate in Ripple for Plug-in



Type 450C is the 105 °C version of the Type 420C Inverter Grade capacitor, and it is the PC-mount version of the Type 550C. It delivers the ripple-current capability and exceptional life needed for motor-drive and inverter bus capacitors. It is a significantly better value than comparable 105 °C snap-in capacitors. The extended cathode foil of the 450C assures cool operation and heat flow from the capacitor element to the can in all orientations.

Highlights

- Better value than large 105 °C snap-in capacitors
- Especially for motor drives and UPS systems
- ESRs to 6.9 mΩ
- Printed-circuit mounting
- Thermal-Pak™ extended cathode construction

Specifications

Operating Temperature:	–40 °C to 105 °C
Rated Voltage:	100 to 500 Vdc
Capacitance:	150 µF to 24,000 µF ± 20%
DC Leakage Current:	≤ 3 $\sqrt{CV}$ µA, 4 mA max, 5 minutes
Cold Impedance:	20 °C multiple of 25 °C $Z \leq 3$
Ripple Current Multipliers:	Ambient Temperature

45 °C	55 °C	65 °C	75 °C	85 °C	95 °C	105 °C
1.66	1.52	1.37	1.20	1.00	0.75	0.36

Frequency

	50 Hz	60 Hz	120 Hz	360 Hz	1 kHz	5 kHz	10 kHz
1 3/8" & 1 3/4" Diameters							
100 to 350 V	0.91	0.93	1.00	1.06	1.08	1.09	1.09
400 to 500 V	0.82	0.86	1.00	1.14	1.20	1.23	1.23
2" Diameters							
100 to 350 V	0.92	0.94	1.00	1.05	1.07	1.08	1.08
400 to 500 V	0.82	0.86	1.00	1.14	1.20	1.23	1.27

EIA Ripple Life: 5000 h at 85 °C per EIA IS-749 with 85 °C ripple current

Δ Capacitance ± 20%
ESR 200 % of limit
DCL 100 % of limit

Life Test: 10,000 h at 105 °C with rated voltage

Δ Capacitance ± 10%
ESR 200 % of limit
DCL 100 % of limit

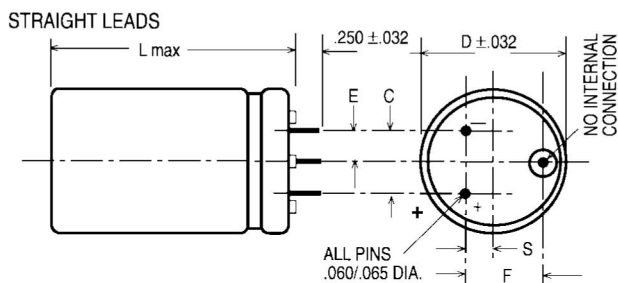
Shelf Life Test: 500 h at 105 °C. Capacitance, ESR and DCL meet initial requirements

Vibration: 10 to 55 Hz, 0.06" and 10 g max, 2 h each plane



Complies with the EU Directive 2002/95/EC requirement restricting the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr(VI)), PolyBrominated Biphenyls (PBB) and PolyBrominated Diphenyl Ethers (PBDE).

Type 450C 105 °C Ultra-Ripple, Long-life, Inverter Grade, Radial Leaded Outline Drawings



Case Dimensions

Case Code	Inches						Millimeters					
	D ± .031	L MAX	C ± .015	S ± .031	E ± .031	F ± .015	D ± .78	L MAX	C ± .78	S ± .78	E ± .78	F ± .38
AK	1.375	1.75	0.50	0.175	0.25	0.55	34.93	44.45	12.70	4.45	6.35	13.97
AA	1.375	2.25	0.50	0.175	0.25	0.55	34.93	57.15	12.70	4.45	6.35	13.97
AH	1.375	2.75	0.50	0.175	0.25	0.55	34.98	69.85	12.70	4.45	6.35	13.97
AB	1.375	3.25	0.50	0.175	0.25	0.55	34.93	82.55	12.70	4.45	6.35	13.97
AJ	1.375	3.75	0.50	0.175	0.25	0.55	34.93	95.25	12.70	4.45	6.35	13.97
AC	1.375	4.25	0.50	0.175	0.25	0.55	34.93	107.95	12.70	4.45	6.35	13.97
AD	1.375	4.75	0.50	0.175	0.25	0.55	34.93	120.65	12.70	4.45	6.35	13.97
AE	1.375	5.25	0.50	0.175	0.25	0.55	34.93	133.35	12.70	4.45	6.35	13.97
AF	1.375	5.75	0.50	0.175	0.25	0.55	34.93	146.05	12.70	4.45	6.35	13.97
EA	1.75	2.25	0.70	0.375	0.35	0.90	44.45	57.15	17.78	9.53	8.89	22.86
EH	1.75	2.75	0.70	0.375	0.35	0.90	44.45	69.85	17.78	9.53	8.89	22.86
EB	1.75	3.25	0.70	0.375	0.35	0.90	44.45	82.55	17.78	9.53	8.89	22.86
EJ	1.75	3.75	0.70	0.375	0.35	0.90	44.45	95.25	17.78	9.53	8.89	22.86
EC	1.75	4.25	0.70	0.375	0.35	0.90	44.45	107.95	17.78	9.53	8.89	22.86
ED	1.75	4.75	0.70	0.375	0.35	0.90	44.45	120.65	17.78	9.53	8.89	22.86
EE	1.75	5.25	0.70	0.375	0.35	0.90	44.45	133.35	17.78	9.53	8.89	22.86
EF	1.75	5.75	0.70	0.375	0.35	0.90	44.45	146.05	17.78	9.53	8.89	22.86
BA	2.00	2.25	0.80	0.425	0.40	1.00	50.80	57.15	20.32	10.80	10.16	25.40
BH	2.00	2.75	0.80	0.425	0.40	1.00	50.80	69.85	20.32	10.80	10.16	25.40
BB	2.00	3.25	0.80	0.425	0.40	1.00	50.80	82.55	20.32	10.80	10.16	25.40
BJ	2.00	3.75	0.80	0.425	0.40	1.00	50.80	95.25	20.32	10.80	10.16	25.40
BC	2.00	4.25	0.80	0.425	0.40	1.00	50.80	107.95	20.32	10.80	10.16	25.40
BD	2.00	4.75	0.80	0.425	0.40	1.00	50.80	120.65	20.32	10.80	10.16	25.40
BE	2.00	5.25	0.80	0.425	0.40	1.00	50.80	133.25	20.32	10.80	10.16	25.40
BF	2.00	5.75	0.80	0.425	0.40	1.00	50.80	146.05	20.32	10.80	10.16	25.40

Part Numbering System

450C	222	M	100	AK	8	
Type	Capacitance	Tolerance	Voltage	Case Code	Insulation	Terminal
	222 = 2200 µF 151 = 150 µF	M = ±20% T = -10% +50% U = -10% +75%	100 = 100 V 450 = 450 V		0 = Bare can 8 = PVC and Standoffs 9 = Polyester and Standoffs	(blank) = Straight Leads

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Ratings

Cap. (µF)	Catalog Part Number	ESR Max. 25 °C 120 Hz 20 kHz (mΩ)	Ripple Amps, 85 °C 120 Hz 20 kHz (A) (A)	Nominal Size D X L (in)
100 Vdc (125 Vdc Surge)				
2200	450C222M100AK8	74.90	50.90	4.20 5.20
3300	450C332M100AA8	50.30	34.20	5.80 7.30
4000	450C402M100AH8	36.80	24.90	7.00 8.80
4800	450C482M100EA8	40.10	27.20	7.50 9.40
5800	450C582M100AB8	28.50	19.40	8.60 10.70
6100	450C612M100BA8	37.00	25.10	8.40 10.50
6600	450C662M100EH8	28.70	19.50	9.50 11.90
7100	450C712M100AJ8	23.50	15.90	9.90 12.40
8200	450C822M100BH8	26.30	17.80	10.70 13.40
8400	450C842M100AC8	20.10	13.60	11.30 14.10
8700	450C872M100EB8	22.20	15.10	11.70 14.60
9800	450C982M100AD8	17.70	12.00	12.60 15.80
11000	450C113M100AE8	15.90	10.80	13.90 17.40
11000	450C113M100EJ8	18.30	12.40	13.30 16.60
11000	450C113M100BB8	20.40	13.80	12.90 16.10
12000	450C123M100AF8	18.10	12.30	13.70 17.10
13000	450C133M100EC8	15.60	10.60	14.90 18.60
14000	450C143M100BJ8	16.80	11.40	15.90 19.90
15000	450C153M100ED8	13.70	9.30	16.80 21.00
16000	450C163M100BC8	14.40	9.80	17.30 21.60
17000	450C173M100EE8	12.30	8.40	18.80 23.40
18000	450C183M100BD8	12.70	8.60	19.00 23.70
19000	450C193M100EF8	11.30	7.60	21.00 26.20
22000	450C223M100BE8	11.10	7.50	21.00 26.20
24000	450C243M100BF8	10.20	6.90	22.70 28.40
160 Vdc (200 Vdc Surge)				
1200	450C122M160AK8	113.00	65.20	4.20 5.60
1800	450C182M160AA8	75.70	44.10	5.90 7.70
2600	450C262M160EA8	56.20	36.80	7.50 9.30
3000	450C302M160AH8	53.20	31.30	7.30 9.50
3300	450C332M160AB8	41.40	24.70	8.90 11.50
3300	450C332M160BA8	47.90	34.10	8.30 9.90
3600	450C362M160EH8	40.20	26.00	9.50 11.80
4000	450C402M160AJ8	34.20	20.60	10.20 13.10
4500	450C452M160BH8	33.90	23.80	10.70 12.70
4700	450C472M160EB8	31.20	20.40	11.70 14.40
4800	450C482M160AC8	29.40	18.00	11.60 14.80
5300	450C532M160AD8	26.90	16.50	12.70 16.20
5800	450C582M160EJ8	25.70	16.90	13.30 16.30
6000	450C602M160BB8	26.40	18.60	12.70 15.10
6100	450C612M160AE8	24.20	15.10	14.00 17.80
6700	450C672M160AF8	22.20	14.10	15.40 19.30
6900	450C692M160EC8	22.00	14.70	14.90 18.20
7400	450C742M160BJ8	21.70	15.50	15.70 18.60
8000	450C802M160ED8	19.40	13.10	16.70 20.30
8700	450C872M160BC8	18.70	13.40	17.10 20.10
9100	450C912M160EE8	17.50	11.90	18.60 22.60
10000	450C103M160EF8	16.00	11.00	20.80 25.10
10000	450C103M160BD8	16.50	11.90	18.70 22.00
12000	450C123M160BE8	14.50	10.70	20.70 24.10
13000	450C133M160BF8	13.40	9.90	22.30 25.90
200 Vdc (250 Vdc Surge)				
880	450C881M200AK8	142.00	78.90	3.80 5.00
1300	450C132M200AA8	95.50	53.30	5.30 7.00
1900	450C192M200EA8	68.40	42.50	6.80 8.70
2000	450C202M200AH8	66.90	37.70	6.50 8.60
2500	450C252M200AB8	51.90	29.50	7.90 10.50

Cap. (µF)	Catalog Part Number	ESR Max. 25 °C 120 Hz 20 kHz (mΩ)	Ripple Amps, 85 °C 120 Hz 20 kHz (A)	Nominal Size D X L (in)
2500	450C252M200BA8	56.70	38.10	7.70 9.30
2700	450C272M200EH8	49.00	30.10	8.60 11.00
3000	450C302M200AJ8	42.70	24.60	9.10 12.00
3300	450C332M200BH8	40.30	26.70	9.80 12.00
3500	450C352M200EB8	37.90	23.50	10.60 13.40
3600	450C362M200AC8	36.50	21.30	10.40 13.60
4000	450C402M200AD8	33.40	19.50	11.40 14.90
4300	450C432M200EJ8	31.20	19.50	12.10 15.20
4400	450C442M200BB8	31.20	20.90	11.70 14.30
4500	450C452M200AE8	29.90	17.70	12.60 16.40
5000	450C502M200AF8	27.30	16.40	13.90 17.90
5100	450C512M200EC8	26.60	16.80	13.50 17.00
5500	450C552M200BJ8	25.70	17.30	14.50 17.60
6000	450C602M200ED8	23.40	14.90	15.20 19.00
6400	450C642M200BC8	22.00	14.90	15.70 19.10
6700	450C672M200EE8	21.00	13.50	17.00 21.20
7400	450C742M200BD8	19.40	13.30	17.30 20.90
7600	450C762M200EF8	19.10	12.50	19.00 23.60
8900	450C892M200BE8	16.90	11.80	19.10 22.90
9800	450C982M200BF8	15.50	10.90	20.70 24.70
250 Vdc (300 Vdc Surge)				
550	450C551M250AK8	210.00	87.30	3.10 4.80
830	450C831M250AA8	141.00	58.90	4.30 6.70
1000	450C102M250AH8	98.10	41.60	5.40 8.20
1200	450C122M250EA8	96.10	45.90	5.80 8.30
1500	450C152M250BA8	76.50	40.60	6.60 9.00
1600	450C162M250AB8	75.70	32.50	6.50 10.00
1700	450C172M250EH8	69.20	32.60	7.20 10.60
1900	450C192M250AJ8	62.00	27.00	7.60 11.50
2100	450C212M250BH8	54.70	28.50	8.40 11.60
2200	450C222M250EB8	53.40	25.40	8.90 12.90
2300	450C232M250AC8	52.70	23.30	8.70 13.00
2500	450C252M250AD8	48.20	21.30	9.50 14.20
2700	450C272M250EJ8	43.60	21.00	10.20 14.70
2800	450C282M250BB8	42.20	22.20	10.10 13.90
2900	450C292M250AE8	43.00	19.40	10.50 15.70
3100	450C312M250AF8	38.90	17.90	11.60 17.10
3200	450C322M250EC8	37.10	18.10	11.50 16.40
3400	450C342M250BJ8	34.60	18.40	12.50 17.10
3800	450C382M250ED8	32.40	16.00	12.90 18.10
4100	450C412M250BC8	29.40	15.90	13.60 18.50
4200	450C422M250EE8	28.90	14.50	14.50 20.50
4700	450C472M250BD8	26.00	14.10	14.90 20.30
4800	450C482M250EF8	26.20	13.40	16.30 22.80
5600	450C562M250BE8	22.40	12.50	16.60 22.30
6200	450C622M250BF8	20.40	11.50	18.00 24.00
300 Vdc (350 Vdc Surge)				
380	450C381M300AK8	283.00	134.00	2.40 3.50
570	450C571M300AA8	189.00	89.90	3.30 4.80
800	450C801M300AH8	131.00	63.10	4.10 6.00
960	450C961M300EA8	119.00	56.70	4.80 6.90
1100	450C112M300AB8	101.00	49.00	5.10 7.30
1200	450C122M300BA8	106.00	53.20	5.50 7.80
1300	450C132M300EH8	87.00	40.80	6.00 8.70
1300	450C132M300AJ8	82.40	40.40	5.90 8.40
1500	450C152M300AC8	69.70	34.60	6.70 9.50
1600	450C162M300BH8	75.80	37.70	7.00 9.90
1700	450C172M300EB8	66.90	31.70	7.30 10.70

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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