Type 125 –55 ºC to +125 ºC, Ultra-High Temperature, Military Grade

The Pace-Setter for Long Life and High Temperature

Exceeding the requirements of military aluminum electrolytic large can capacitors, the Type 125 performs in the most demanding filter applications delivering the longest life and the lowest leakage in low-voltage, aluminum-electrolytic capacitors. It's the choice for output capacitors in high temperature and military power supplies.

Highlights

- Now 5000 hour load life
- Ripple Current to 50 amps
- ESRs to 4mΩ
- >90% capacitance at –40 ºC
- Operates at +125 ºC

Specifications

Operating Temperature: –55 ºC to +125 ºC

Rated Voltage: 5 to 40 Vdc

Capacitance: 2600 µF to 190,000 µF

Capacitance Tolerance: –10 +75%

Leakage Current: ≤0.003 CV µA @ +25 ºC; ≤0.009 CV @ +125ºC

Cold Impedance: –55 ºC Multiple of +25 ºC Z ≤2

Ripple Current Multipliers:

Ambient Temperature

+45 ºC	+55 ºC	+65 ºC	+75 ºC	+85 ºC	95 ºC	105 ºC
1.80	1.63	1.45	1.25	1.00	0.87	0.71

Frequency

50 Hz	60 Hz	120 Hz	360 Hz	1 kHz	5 kHz	10 kHz & Up
0.85	0.87	1.00	1.10	1.22	1.32	1.33

RoHS Compliant

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).

EIA Ripple Life: 5,000 h at full load @ 85 ºC per EIA IS-749
- Δ Capacitance ±20%
- ESR 200% of limit
- DCL 100% of limit

Life Test: 5,000 h at +125ºC and rated voltage
- Δ Capacitance ±20%
- ESR 200% of limit
- DCL 100% of limit

Shelf Life: 500 h @ 105 VC, capacitance, ESR and DCL, initial requirements

Vibration: 10 to 55 Hz, 0.06" and 10 g max, 1.5 h each of 2 axis

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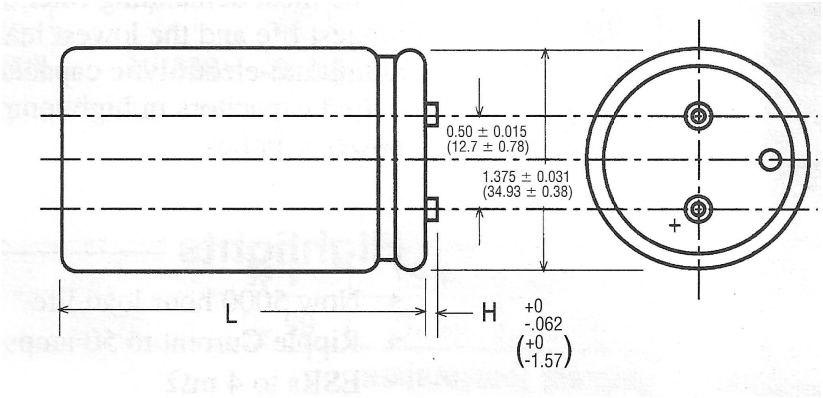
Outline Drawing



Terminal Dimensions

Terminal Style	Code	Post Diameter in	Post Diameter mm	H max in	H max mm	Thread	min Full Thread in	min Full Thread mm	Torque in·lb	Torque N·m
Low Post	A	0.314	8.0	0.094	2.4	10–32	0.218	5.5	25	2.82
High Post	B	0.314	8.0	0.281	7.1	10–32	0.375	9.5	25	2.82

Case Dimensions

Uninsulated Case Dimensions

For insulated case, add 0.024" (0.610 mm) to “D” and 0.030" (0.762 mm) to height.

Case Code	Diam. (D) ±.031 Inches	Diam. (D) ±.78 mm	Length (L) ±.062 Inches	Length (L) ±1.57 mm	Terminals (S) ±0.015 Inches	Terminals (S) ±.78 mm	Typical Weight oz	Typical Weight g
AK	1.375	34.93	1.625	41.28	0.5	12.7	1.9	54
AA	1.375	34.93	2.125	53.98	0.5	12.7	2.0	57
AH	1.375	34.93	2.625	66.68	0.5	12.7	2.7	77
AB	1.375	34.93	3.125	79.38	0.5	12.7	3.3	94
AJ	1.375	34.93	3.625	92.08	0.5	12.7	3.8	108
AC	1.375	34.93	4.125	104.78	0.5	12.7	4.4	125
AD	1.375	34.93	4.625	117.48	0.5	12.7	5.1	145
AE	1.375	34.93	5.125	130.18	0.5	12.7	5.7	193
AF	1.375	34.93	5.625	142.88	0.5	12.7	6.4	230

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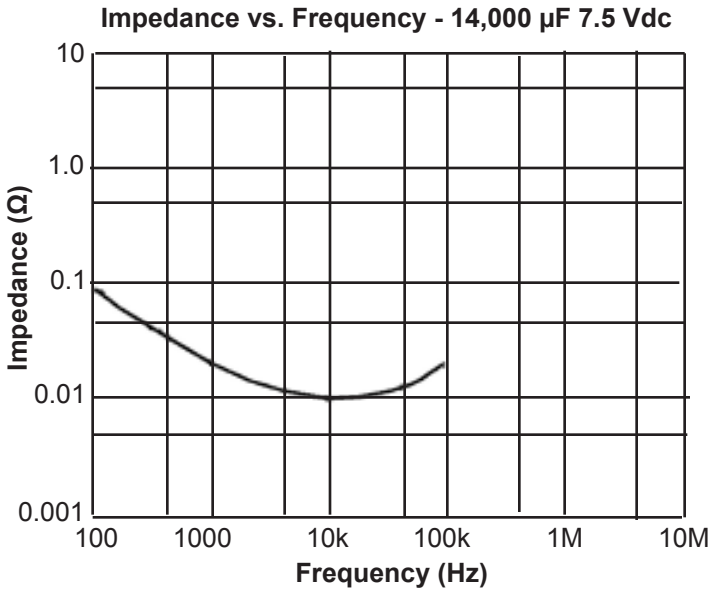
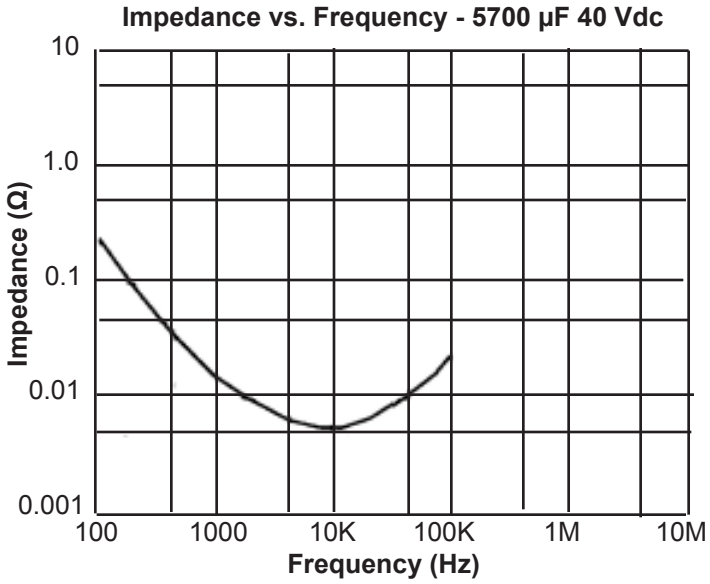
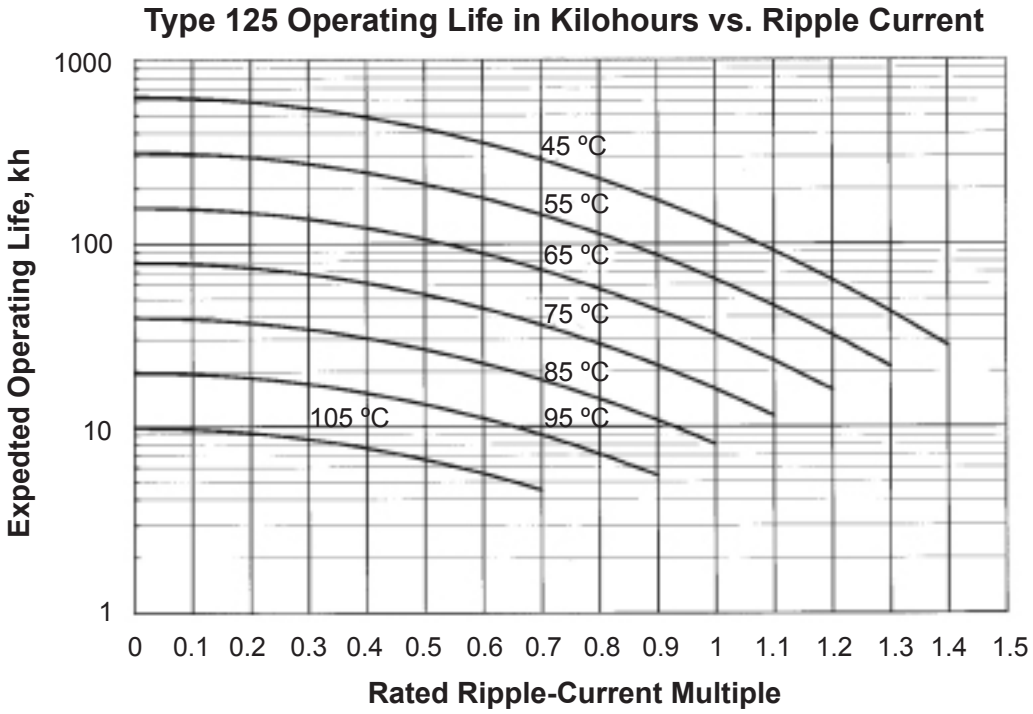
Part Numbering System

125	333	U	7R5	AA	1	B
Type	**Capacitance**	**Tolerance**	**Voltage**	**Case Code**	**Insulation**	**Terminal**
	100 = 10 µF 101 = 100 µF	U = –10% +75%	6R3 = 6.3 Vdc 063 = 63 Vdc 100 = 100 Vdc	See Ratings Table	0 = None 1 = Polyester	A = Low Post B = High Post

Typical Performance Curves







Type 125 –55 ºC to +125 ºC, Ultra-High Temperature, Military Grade

Ratings

Cap µF	Catalog Part Number	ESR Max @ +25 ºC 120 Hz (Ω)	ESR Max @ +25 ºC 20 kHz (Ω)	Ripple Max @ +85 ºC 120 Hz (Arms)	Ripple Max @ +85 ºC 20 kHz (Arms)	Nominal Size D x L (Inches)
5Vdc (8 Vdc Surge)						
25000	125253U005AK1B	0.028	0.022	10.3	15.5	1 3/8 x 1 5/8
49000	125493U005AA1B	0.017	0.013	17.2	21.0	1 3/8 x 2 1/8
65000	125653U005AH1B	0.012	0.010	21.0	25.4	1 3/8 x 2 5/8
89000	125893U005AB1B	0.010	0.008	24.0	28.5	1 3/8 x 3 1/8
110000	125114U005AJ1B	0.008	0.006	26.1	31.0	1 3/8 x 3 5/8
130000	125134U005AC1B	0.007	0.006	28.2	32.9	1 3/8 x 4 1/8
150000	125154U005AD1B	0.006	0.005	29.3	34.1	1 3/8 x 4 5/8
170000	125174U005AE1B	0.006	0.005	30.6	35.3	1 3/8 x 5 1/8
190000	125194U005AF1B	0.005	0.004	30.7	35.1	1 3/8 x 5 5/8
6.3Vdc (10 Vdc Surge)						
23000	125233U6R3AK1B	0.028	0.022	11.3	15.5	1 3/8 x 1 5/8
38000	125383U6R3AA1B	0.047	0.013	17.2	21.0	1 3/8 x 2 1/8
58000	125583U6R3AH1B	0.012	0.009	21.0	25.4	1 3/8 x 2 5/8
72000	125723U6R3AB1B	0.009	0.008	24.0	28.5	1 3/8 x 3 1/8
89000	125893U6R3AJ1B	0.008	0.006	26.1	31.0	1 3/8 x 3 5/8
110000	125114U6R3AC1B	0.007	0.006	28.2	32.9	1 3/8 x 4 1/8
120000	125124U6R3AD1B	0.006	0.005	29.6	34.0	1 3/8 x 4 5/8
140000	125144U6R3AE1B	0.006	0.005	30.6	35.3	1 3/8 x 5 1/8
160000	125164U6R3AF1B	0.005	0.004	30.7	35.1	1 3/8 x 5 5/8
7.5Vdc (12 Vdc Surge)						
20000	125203U7R5AK1B	0.029	0.022	11.8	15.5	1 3/8 x1 5/8
33000	125333U7R5AA1B	0.017	0.013	16.8	20.9	1 3/8 x 2 1/8
48000	125483U7R5AH1B	0.013	0.010	20.4	25.2	1 3/8 x 2 5/8
63000	125633U7R5AB1B	0.010	0.008	23.4	28.5	1 3/8 x 3 1/8
78000	125783U7R5AJ1B	0.008	0.006	25.7	30.9	1 3/8 x 3 5/8
93000	125933U7R5AC1B	0.007	0.006	27.5	32.9	1 3/8 x 4 1/8
110000	125114U7R5AD1B	0.006	0.005	28.8	34.0	1 3/8 x 4 5/8
120000	125124U7R5AE1B	0.006	0.005	30.2	35.3	1 3/8 x 5 1/8
140000	125144U7R5AF1B	0.005	0.004	30.2	35.3	1 3/8 x 5 5/8
12.5Vdc (20 Vdc Surge)						
13000	125133U12R5AK1B	0.032	0.022	11.6	15.2	1 3/8 x 1 5/8
22000	125223U12R5AA1B	0.019	0.014	15.7	20.6	1 3/8 x 2 1/8
32000	125323U12R5AH1B	0.014	0.010	19.2	25.0	1 3/8 x 2 5/8
41000	125413U12R5AB1B	0.011	0.008	21.9	28.2	1 3/8 x 3 1/8
51000	125513U12R5AJ1B	0.009	0.007	24.1	30.6	1 3/8 x 3 5/8
61000	125613U12R5AC1B	0.008	0.006	25.9	32.4	1 3/8 x 4 1/8
71000	125713U12R5AD1B	0.007	0.005	27.2	33.7	1 3/8 x 4 5/8
81000	125813U12R5AE1B	0.006	0.005	28.5	35.0	1 3/8 x 5 1/8
90000	125903U12R5AF1B	0.006	0.004	28.8	34.7	1 3/8 x 5 5/8
15Vdc (25 Vdc Surge)						
10000	125103U015AK1B	0.031	0.021	11.1	14.4	1 3/8 x 1 5/8
17000	125173U015AA1B	0.019	0.013	15.2	19.5	1 3/8 x 2 1/8
24000	125243U015AH1B	0.013	0.01	18.6	23.7	1 3/8 x 2 5/8
32000	125323U015AB1B	0.011	0.008	21.2	26.8	1 3/8 x 3 1/8
40000	125403U015AJ1B	0.009	0.006	23.4	29.2	1 3/8 x 3 5/8

Cap µF	Catalog Part Number	ESR Max @ +25 ºC 120 Hz (Ω)	ESR Max @ +25 ºC 20 kHz (Ω)	Ripple Max @ +85 ºC 120 Hz (Arms)	Ripple Max @ +85 ºC 20 kHz (Arms)	Nominal Size D x L (Inches)
15Vdc (25 Vdc Surge)						
47000	125473U015AC1B	0.008	0.005	25.1	31.0	1 3/8 x 4 1/8
55000	125553U015AD1B	0.007	0.005	26.5	32.3	1 3/8 x 4 5/8
62000	125623U015AE1B	0.006	0.005	27.8	33.6	1 3/8 x 5 1/8
70000	125703U015AF1B	0.006	0.004	28.1	33.4	1 3/8 x 5 5/8
20Vdc (25 Vdc Surge)						
7000	125702U020AK1B	0.034	0.022	10.4	10.4	1 3/8 x 1 5/8
12000	125123U020AA1B	0.020	0.013	14.4	14.4	1 3/8 x 2 1/8
18000	125183U020AH1B	0.015	0.010	17.5	17.5	1 3/8 x 2 5/8
24000	125243U020AB1B	0.012	0.008	20.0	20.0	1 3/8 x 3 1/8
29000	125293U020AJ1B	0.010	0.006	22.1	22.1	1 3/8 x 3 5/8
35000	125353U020AC1B	0.008	0.006	23.8	23.8	1 3/8 x 4 1/8
40000	125403U020AD1B	0.007	0.005	25.1	25.1	1 3/8 x 4 5/8
46000	125463U020AE1B	0.007	0.005	26.5	26.5	1 3/8 x 5 1/8
51000	125513U020AF1B	0.006	0.004	26.8	26.8	1 3/8 x 5 5/8
25Vdc (40 Vdc Surge)						
5600	125562U025AK1B	0.035	0.022	10.3	14.2	1 3/8 x 1 5/8
9300	125932U025AA1B	0.021	0.013	14.5	19.2	1 3/8 x 2 1/8
14000	125143U025AH1B	0.015	0.010	17.2	23.3	1 3/8 x 2 5/8
18000	125183U025AB1B	0.012	0.008	19.7	26.4	1 3/8 x 3 1/8
22000	125223U025AJ1B	0.010	0.006	21.7	28.8	1 3/8 x 3 5/8
26000	125263U025AC1B	0.009	0.006	23.5	30.7	1 3/8 x 4 1/8
30000	125303U025AD1B	0.008	0.005	24.8	32.0	1 3/8 x 4 5/8
34000	125343U025AE1B	0.007	0.005	26.1	33.3	1 3/8 x 5 1/8
39000	125393U025AF1B	0.006	0.004	26.4	33.1	1 3/8 x 5 5/8
30Vdc (50 Vdc Surge)						
4000	125402U030AK1B	0.037	0.022	9.9	14.1	1 3/8 x 1 5/8
7300	125732U030AA1B	0.022	0.013	13.5	19	1 3/8 x 2 1/8
11000	125113U030AH1B	0.016	0.010	16.5	23.1	1 3/8 x 2 5/8
14000	125143U030AB1B	0.013	0.008	18.9	26.2	1 3/8 x 3 1/8
17000	125173U030AJ1B	0.011	0.007	20.9	28.6	1 3/8 x 3 5/8
20000	125203U030AC1B	0.009	0.006	22.6	30.5	1 3/8 x 4 1/8
24000	125243U030AD1B	0.008	0.005	23.8	31.7	1 3/8 x 4 5/8
27000	125273U030AE1B	0.007	0.005	25.2	33	1 3/8 x 5 1/8
30000	125303U030AF1B	0.007	0.004	25.5	33	1 3/8 x 5 5/8
40Vdc (60 Vdc Surge)						
2600	125262U040AK1B	0.040	0.022	9.4	14.0	1 3/8 x 1 5/8
4600	125462U040AA1B	0.024	0.014	12.8	18.9	1 3/8 x 2 1/8
6700	125672U040AH1B	0.017	0.010	15.8	22.8	1 3/8 x 2 5/8
8800	125882U040AB1B	0.014	0.008	18.0	25.9	1 3/8 x 3 1/8
11000	125113U040AJ1B	0.011	0.007	20.0	28.3	1 3/8 x 3 5/8
13000	125133U040AC1B	0.010	0.006	21.7	30.2	1 3/8 x 4 1/8
15000	125153U040AD1B	0.009	0.005	22.8	31.4	1 3/8 x 4 5/8
17000	125173U040AE1B	0.008	0.005	24.3	32.7	1 3/8 x 5 1/8
19000	125193U040AF1B	0.007	0.004	24.5	32.7	1 3/8 x 5 5/8

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
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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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