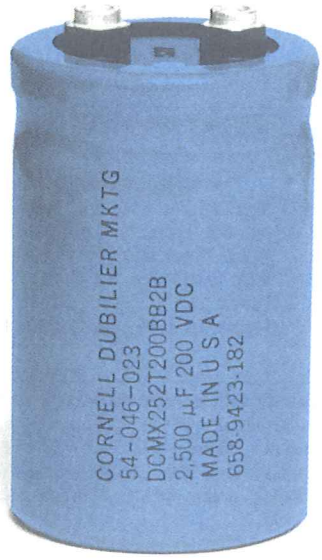
Computer Grade, -40°C +85°C, High Capacitance, Type DCMX



Best Value Screw Terminal Type

Type DCMX capacitors are the choice for power supply filters and energy storage applications such as welding equipment, computer hold-up power where high capacitance, low ESR and the ability to handle large ripple currents are the hallmarks.

Capacitance: 110µF to 1.5F
Capacitance Tolerance: -10% +75%
Voltage: 6.3 to 500Vdc
Operating Temperature: -40°C to +85°C
Life Test: 2,000 hours @ +85°C
Ripple Test: 1,000 hours at full load @ +85°C
Shelf Test: 100 hours @ +85°C
DCL: ≤ 6 $\sqrt{CV}$ µA (6mA maximum)

Cap. µF	Catalog Number	ESR Max mΩ @25°C 120 Hz	20kHz	Ripple A @85°C 120Hz	20kHz	Nominal Size (in.) D x L
6.3 Vdc - 8 Vdc Surge						
34,000	DCMX343U6R3AK2B	51.0	35.0	4.9	7.1	1 3/8 x 1 5/8
51,000	DCMX513U6R3AA2B	30.0	21.0	6.8	9.6	1 3/8 x 2 1/8
73,000	DCMX733U6R3AH2B	23.0	16.0	8.0	11.2	1 3/8 x 2 5/8
95,000	DCMX953U6R3AB2B	14.0	10.0	10.4	13.6	1 3/8 x 3 1/8
140,000	DCMX144U6R3AC2B	11.0	8.1	11.2	13.8	1 3/8 x 4 1/8
190,000	DCMX194U6R3BB2B	13.0	10.0	12.6	15.7	2 x 3 1/8
210,000	DCMX214U6R3AF2B	11.0	8.6	10.9	13.4	1 3/8 x 5 5/8
230,000	DCMX234U6R3EC2B	9.4	7.3	13.1	15.4	1 3/4 x 4 1/8
300,000	DCMX304U6R3BC2B	10.0	7.3	14.7	17.9	2 x 4 1/8
310,000	DCMX314U6R3BF2B	6.9	5.3	16.9	20.0	2 x 5 5/8
480,000	DCMX480U6R3CC2B	6.8	5.4	19.6	22.6	2 1/2 x 4 1/8
500,000	DCMX504U6R3CF2B	4.9	4.0	22.9	25.9	2 1/2 x 5 5/8
670,000	DCMX674U6R3DC2B	6.2	5.3	20.7	22.4	3 x 4 1/8
900,000	DCMX904U6R3DE2B	4.9	4.3	23.5	25.2	3 x 5 1/8
1,000,000	DCMX105U6R3DF2B	4.5	4.0	24.5	26.2	3 x 5 5/8
1,100,000	DCMX115U6R3DP2B	4.4	3.9	24.7	26.4	3 x 5 7/8
7.5Vdc - 9 Vdc Surge						
33,000	DCMX333U7R5AK2B	51.0	35.0	4.8	7.1	1 3/8 x 1 5/8
49,000	DCMX493U7R5AA2B	30.0	21.0	6.7	9.6	1 3/8 x 2 1/8
71,000	DCMX713U7R5AH2B	23.0	16.0	7.9	11.2	1 3/8 x 2 5/8
92,000	DCMX923U7R5AB2B	19.0	13.0	8.8	12.1	1 3/8 x 3 1/8
140,000	DCMX144U7R5AC2B	14.0	10.0	10.3	13.6	1 3/8 x 4 1/8
190,000	DCMX194U7R5BB2B	13.0	10.0	12.5	15.7	2 x 3 1/8
200,000	DCMX204U7R5AF2B	12.0	8.6	10.8	13.4	1 3/8 x 5 5/8
220,000	DCMX224U7R5EC2B	9.5	7.3	13.1	15.4	1 3/4 x 4 1/8
290,000	DCMX294U7R5BC2B	10.0	7.3	14.6	17.9	2 x 4 1/8
440,000	DCMX444U7R5BF2B	6.9	5.3	16.8	20.0	2 x 5 5/8
470,000	DCMX470U7R5CC2B	6.8	5.4	19.5	22.6	2 1/2 x 4 1/8
650,000	DCMX654U7R5DC2B	4.7	4.1	24.4	26.2	3 x 4 1/8
710,000	DCMX714U7R5CF2B	4.9	3.9	22.8	25.9	2 1/2 x 5 5/8
870,000	DCMX874U7R5DE2B	5.0	4.3	23.4	25.2	3 x 5 1/8
980,000	DCMX984U7R5DF2B	4.6	4.0	24.4	26.2	3 x 5 5/8
1,000,000	DCMX105U7R5DP2B	4.4	3.9	24.7	26.4	3 x 5 7/8
10Vdc - 12 Vdc Surge						
29,000	DCMX293U010AK2B	51.0	35.0	4.8	7.1	1 3/8 x 1 5/8
43,000	DCMX433U010AA2B	30.0	21.0	6.7	9.6	1 3/8 x 2 1/8
62,000	DCMX623U010AH2B	23.0	16.0	7.9	11.2	1 3/8 x 2 5/8
81,000	DCMX813U010AB2B	19.0	13.0	8.8	12.1	1 3/8 x 3 1/8

Cap. µF	Catalog Number	ESR Max mΩ @25°C 120 Hz	20kHz	Ripple A @85°C 120Hz	20kHz	Nominal Size (in.) D x L
10Vdc - 12 Vdc Surge (continued)						
120,000	DCMX124U010AC2B	14.0	10.0	10.3	13.6	1 3/8 x 4 1/8
170,000	DCMX174U010BB2B	13.0	10.0	12.5	15.7	2 x 3 1/8
180,000	DCMX184U010AF2B	12.0	8.6	10.8	13.4	1 3/8 x 5 5/8
200,000	DCMX204U010EC2B	9.5	7.3	13.1	15.4	1 3/4 x 4 1/8
250,000	DCMX254U010BC2B	10.0	7.4	14.6	17.9	2 x 4 1/8
390,000	DCMX394U010BF2B	6.9	5.3	16.8	20.0	2 x 5 5/8
410,000	DCMX414U010CC2B	6.8	5.4	19.5	22.6	2 1/2 x 4 1/8
580,000	DCMX584U010DC2B	6.3	5.4	20.6	22.4	3 x 4 1/8
630,000	DCMX634U010CF2B	4.9	4.0	22.8	25.9	2 1/2 x 5 5/8
780,000	DCMX784U010DE2B	5.0	4.4	23.4	25.2	3 x 5 1/8
880,000	DCMX884U010DF2B	4.6	4.0	24.4	26.2	3 x 5 5/8
920,000	DCMX924U010DP2B	4.5	3.9	24.7	26.4	3 x 5 7/8
16Vdc - 20 Vdc Surge						
21,000	DCMX213U016AK2B	51.0	33.5	4.8	7.0	1 3/8 x 1 5/8
35,000	DCMX353U016AA2B	30.0	20.6	6.7	9.6	1 3/8 x 2 1/8
49,000	DCMX493U016AH2B	23.0	15.1	7.9	11.2	1 3/8 x 2 5/8
62,000	DCMX623U016AB2B	19.0	12.1	8.8	12.1	1 3/8 x 3 1/8
90,000	DCMX903U016AC2B	13.8	9.0	10.3	13.6	1 3/8 x 4 1/8
130,000	DCMX134U016AF2B	10.3	7.1	12.6	16.9	1 3/8 x 5 5/8
130,000	DCMX134U016BB2B	10.6	7.2	12.5	15.6	2 x 3 1/8
160,000	DCMX164U016EC2B	9.7	7.0	13.1	16.0	1 3/4 x 4 1/8
190,000	DCMX194U016BC2B	6.9	5.2	19.5	22.6	2 x 4 1/8
290,000	DCMX294U016BF2B	5.4	3.9	21.1	26.1	2 x 5 5/8
310,000	DCMX314U016CC2B	4.9	3.5	22.7	28.2	2 1/2 x 4 1/8
470,000	DCMX474U016CF2B	3.5	2.6	30.4	37.3	2 1/2 x 5 5/8
470,000	DCMX474U016DC2B	4.5	3.6	26.8	31.6	3 x 4 1/8
620,000	DCMX624U016DE2B	3.6	2.9	32.3	38.0	3 x 5 1/8
700,000	DCMX704U016DF2B	3.3	2.6	35.0	41.0	3 x 5 5/8
740,000	DCMX744U016DP2B	3.1	2.5	35.8	41.8	3 x 5 7/8
980,000	DCMX984U016DG2B	6.5	6.3	23.8	30.4	3 x 8 5/8
20Vdc - 25 Vdc Surge						
250,000	DCMX254U020DJ2D	5.8	29.0	5.0	33.0	3 x 3 5/8
500,000	DCMX504U020DF2D	3.9	37.0	3.4	42.0	3 x 5 5/8
1,000,000	DCMX105U020DP2D	3.4	40.0	3.0	45.0	3 x 5 7/8
1,500,000	DCMX155U020DG2D	3.2	41.0	2.8	45.0	3 x 8 5/8
25Vdc - 30 Vdc Surge						
13,000	DCMX133U025AK2B	54.0	33.5	4.6	6.9	1 3/8 x 1 5/8
22,000	DCMX223U025AA2B	32.0	20.6	6.4	9.5	1 3/8 x 2 1/8
31,000	DCMX313U025AH2B	24.0	15.1	7.6	11.0	1 3/8 x 2 5/8
40,000	DCMX403U025AB2B	20.0	12.1	8.4	11.9	1 3/8 x 3 1/8
58,000	DCMX583U025AC2B	14.0	9.0	10.0	13.5	1 3/8 x 4 1/8
82,000	DCMX823U025BB2B	11.4	12.2	15.5	15.5	2 x 3 1/8
85,000	DCMX853U025AF2B	11.1	7.1	12.2	16.9	1 3/8 x 5 5/8
100,000	DCMX104U025EC2B	10.0	7.0	12.7	16.0	1 3/4 x 4 1/8
120,000	DCMX124U025BC2B	7.9	5.2	15.5	20.3	2 x 4 1/8
190,000	DCMX194U025BF2B	5.8	3.9	20.4	26.1	2 x 5 5/8
200,000	DCMX204U025CC2B	5.2	3.5	22.0	28.2	2 1/2 x 4 1/8

Use this Guide to select the best computer grade capacitor for your application. The six columns in the middle rank CDE capacitors by characteristic. Those Types that are superior in a given category are indicated by a star ★.The best have two stars ★★. Consider these for your most important criteria and then compare final specifications before making your selection.

CDE Type	Page	Temp.°C Range	Vdc Range	Life Test Hours	Life Test @°C	High Cap	Low ESR	Low Hi-Freq Imped	High Ripple	Long Life	Low Cost	Comment
DCMX	90	-40 +85	6.3 - 450	1000	+85	★	★	★	★		★★	Max Cap, Best Value, Standard Life & Ripple
500X	94	-40 +95	6.3 - 450	2000	+95	★★		★	★		★	Max Cap, Long Life, Max Ripple, Low ESR
550	100	-40 +105	200 - 400	1000	+105	★	★	★	★	★	★	Motor Control, Ultra High Ripple, High Voltage
101X	102	-55 +105	6.3-55	2000	+105	★	★	★	★	★	★	Wide Temp Range, MIL-C-39018/04, 06, 10 equivalent
139R	99	-55 +85	6.3 - 55	1000	+85		★★	★★			★	Lowest ESR
125	105	-55 +125	6.3 - 40	2000	+125		★	★		★★		Highest Temp, Highest Reliability, Longest Life

Capacitance: Use capacitance bridge with a maximum rms signal voltage of 1 Volt at 120Hz. Capacitance is within tolerance at +25°C.

Equivalent Series Resistance (ESR): Use ESR bridge (with accuracy of ±2% at +25°C) at 120Hz. ESR to be no more than value in table.

DC Leakage Current (DCL): Pre-condition within 24-48 hours of test by applying rated Vdc for 30 minutes (minimum). Measure at +25°C with rated voltage applied through a current limiting resistor. Measure DCL 5 minutes after capacitor reaches rated Vdc. DCL must not exceed specified maximum value.

Storage: From -55°C to maximum operating temperature up to 200,000 feet above sea level.

Surge Test: Connect capacitor in series with resistor as follows:
C=0-2500µF **R**=1000Ω
C=2500-25kµF **R**=500Ω
C=≥ 25,001µF **R**=100Ω
Subject the series combination to rated surge voltage. For capacitors rated at +85°C, apply surge voltage for 30 seconds. Allow capacitor to discharge through resistor. Apply voltage again after 9.5 minutes. Repeat 10 minute cycle for 24 hours. For capacitors rated at +105°C, apply voltage for 30 seconds and off for 5.5 minutes for 1,000 cycles. Following surge test allow capacitors to cool to room temperature and measure DCL. DCL is not to increase from initial requirement and no electrolyte shall have leaked.

Load Life Test: Use a circulating air oven set to capacitor(s)' maximum operating temperature. Separate capacitors to maintain temperature –0°C +3°C. Apply rated Vdc for rated life ±12 hours using regulated power supply free from turn-on/turn-off voltage transients. At end of test, return capacitors to room temperature for 24 hours (min).

DCL is not to exceed initial requirement.
Capacitance must not be less than 85% of initial measured value.
ESR must not be greater than:

Type	% of Initial Requirement
DCMX	175
500X/550	175
101X	100
139R	175
125	175

Full Ripple Life Test: Use a circulating air oven as in Load Life Test. Apply DC voltage with rated ripple current from AC source and reduce DC voltage unit sum of DC voltage and peak AC voltage equals capacitor's rated voltage. At end of life test return capacitors to room temperature for 24 hours (min). Capacitance, ESR and DCL must meet Load Life Test requirements.

Shelf Life Test: Use a circulating air oven as above for rated shelf life ±6 hours. Allow capacitors to cool to room temperature and stabilize for a minimum of 16 hours. Capacitance, ESR and DCL will meet initial requirements.

Vibration: Clamp capacitor to a vibrating platform and subject it to a simple harmonic motion with a maximum peak-to-peak amplitude of 0.06" and maximum acceleration of 10g. Vary the frequency linearly between 10 and 55Hz. Entire range of 10-55Hz must be traversed in one minute. Vibrate capacitor for 1-1/2 hours with the direction of motion being parallel to the axis of the capacitor. Then move the capacitor so the direction of motion is perpendicular to the axis of the capacitor and continue the vibration for an additional 1-1/2 hours. During the last 30 minutes of the test connect the capacitor to a bridge and observe for 3 minutes. There will be no evidence of loosening of the capacitor element within the case when shaken by hand following the test. No indication of intermittent contact, open or shorting is allowed during the 3 minute observation period.

Container Seal: Following the vibration test, test each capacitor for seal tightness as follows: Subject the capacitors to two successive temperature cycles in circulating air. One temperature cycle is:
A. 85°C for 30 minutes; B. 25°C for 30 minutes;
C. -40°C for 30 minutes; D. 25°C for 30 minutes.
Following the second cycle, immerse the capacitor in 90-95°C water for five minutes. A failure is a continuous chain of bubbles when immersed.

Vent Test: Apply reverse DC voltage to a capacitor at 15-25 Amperes. If the capacitor is open or shorts and the vent has not operated, test additional capacitors. The vent must operate and there must be no explosion.

Low Temperature Performance: Measure capacitors at 120Hz and at these low temperatures. The maximum multiple of the 25°C impedance is:

CDE Type	Test Temp -°C	Rated Vdc	Cap % of 25°C	Max Multiple of 25°C Impedance
DCMX/	20	0-10	60	20
500X/		11-50	65	8
550		51-100	70	4
		>100	70	3
101X/	55	0-9	65	6
139R/		10-40	75	3
125		40	80	2

Ripple Current: Ripple current is the AC current flowing through the capacitor. Maximum ripple is determined by the core temperature rise of the capacitor. The ability of a capacitor to handle AC current is also limited by the voltage rating, external surface area and the current carrying capability of the electrode connections of the capacitor. The heat energy warming the capacitor core is I^2R where "R" is the ESR. The maximum permitted ripple current at operating temperature is:

$$I = \sqrt{\Delta T/\Theta ESR}$$

Where: I = Max Ripple Current, rms Amperes
ΔT = Max permitted core temperature rise over Ambient Temperature
Θ = Thermal resistance between core and case and case to Ambient in °C/W.

CDE Computer Grade capacitors have low thermal resistance from core to case because the capacitor section is pressed against the top and bottom of the case and securely anchored with integral spikes. Unlike conventional construction using pitch or wax for anchoring, thermal resistance between core and case can often be neglected. The case temperature at the bottom of the capacitor can be considered to be the core temperature. Use the ripple current multipliers that follow as a guide and make sure case temperature does not exceed rated temperature in high-ripple applications. The multipliers are based on the above relationship and change in ESR with frequency.

Ripple Current Multiplier Table appears on page 107.

Computer Grade, -40°C +85°C, High Capacitance, Type DCMX

Cap. µF	Catalog Number	ESR Max mΩ @25°C 120 Hz	ESR Max mΩ @25°C 20kHz	Ripple A @85°C 120Hz	Ripple A @85°C 20kHz	Nominal Size (in.) D x L

25Vdc - 30 Vdc Surge (continued)

300,000	DCMX304U025DC2B	4.7	3.6	26.2	31.6	3 x 4 1/8
310,000	DCMX314U025CF2B	3.7	2.6	29.6	37.3	2 1/2 x 5 5/8
400,000	DCMX404U025DE2B	3.7	2.9	31.6	38.0	3 x 5 1/8
450,000	DCMX454U025DF2B	3.4	2.6	34.3	41.0	3 x 5 5/8
480,000	DCMX484U025DP2B	3.3	2.5	35.0	41.8	3 x 5 7/8
740,000	DCMX744U025DG2B	2.5	2.0	48.3	56.5	3 x 8 5/8

40Vdc - 50 Vdc Surge

7,800	DCMX782U040AK2B	57.0	34.2	4.3	6.0	1 3/8 x 1 5/8
13,000	DCMX133U040AA2B	33.0	21.0	6.0	8.3	1 3/8 x 2 1/8
18,000	DCMX183U040AH2B	25.0	17.0	7.1	9.7	1 3/8 x 2 5/8
23,000	DCMX233U040AB2B	21.0	14.0	7.9	10.6	1 3/8 x 3 1/8
34,000	DCMX343U040AC2B	15.0	10.0	9.4	12.9	1 3/8 x 4 1/8
47,000	DCMX473U040BB2B	14.1	7.3	11.0	15.4	2 x 3 1/8
49,000	DCMX493U040AF2B	13.0	7.2	11.0	16.7	1 3/8 x 5 5/8
61,000	DCMX613U040EC2B	11.0	7.1	11.4	15.9	1 3/4 x 4 1/8
71,000	DCMX713U040BC2B	9.8	5.2	14.0	20.2	2 x 4 1/8
110,000	DCMX114U040BF2B	7.0	4.0	18.6	26.0	2 x 5 5/8
120,000	DCMX124U040CC2B	6.3	3.6	20.0	28.0	2 1/2 x 4 1/8
180,000	DCMX184U040CF2B	4.5	2.6	27.0	37.1	2 1/2 x 5 5/8
180,000	DCMX184U040DC2B	5.5	3.6	24.3	31.5	3 x 4 1/8
230,000	DCMX234U040DE2B	4.3	2.9	29.5	37.8	3 x 5 1/8
260,000	DCMX264U040DF2B	3.9	2.7	32.1	40.8	3 x 5 5/8
280,000	DCMX284U040DP2B	3.7	2.6	32.7	41.6	3 x 5 7/8
430,000	DCMX434U040DG2B	2.8	2.0	45.6	56.3	3 x 8 5/8

50Vdc - 65 Vdc Surge

5,800	DCMX582U050AK2B	62.0	34.2	4.0	5.9	1 3/8 x 1 5/8
9,600	DCMX962U050AA2B	36.0	21.0	5.6	8.1	1 3/8 x 2 1/8
13,000	DCMX133U050AH2B	27.0	15.4	6.7	9.6	1 3/8 x 2 5/8
17,000	DCMX173U050AB2B	22.4	12.3	7.5	10.5	1 3/8 x 3 1/8
25,000	DCMX253U050AC2B	16.0	9.2	8.9	12.9	1 3/8 x 4 1/8
35,000	DCMX353U050BB2B	15.7	7.3	10.5	15.4	2 x 3 1/8
37,000	DCMX373U050AF2B	11.9	7.2	11.8	16.7	1 3/8 x 5 5/8
45,000	DCMX453U050EC2B	12.0	7.1	11.0	15.9	1 3/4 x 4 1/8
53,000	DCMX533U050BC2B	10.8	5.2	13.3	20.2	2 x 4 1/8
79,000	DCMX793U050BF2B	7.7	4.0	17.7	26.0	2 x 5 5/8
87,000	DCMX873U050CC2B	7.0	3.6	19.1	28.0	2 1/2 x 4 1/8
130,000	DCMX134U050CF2B	4.9	2.6	25.8	37.1	2 1/2 x 5 5/8
130,000	DCMX134U050DC2B	5.9	3.6	23.4	31.5	3 x 4 1/8
170,000	DCMX174U050DE2B	4.6	2.9	28.5	37.8	3 x 5 1/8
190,000	DCMX194U050DF2B	4.2	2.7	31.0	40.8	3 x 5 5/8
210,000	DCMX214U050DP2B	4.0	2.6	31.6	41.6	3 x 5 7/8
320,000	DCMX324U050DG2B	6.1	5.2	30.7	35.1	3 x 8 5/8

63Vdc - 75 Vdc Surge

4,100	DCMX412U063AK2B	73.0	39.0	3.6	5.8	1 3/8 x 1 5/8
6,100	DCMX612U063AA2B	43.0	23.0	5.0	8.0	1 3/8 x 2 1/8
8,900	DCMX892U063AH2B	32.0	18.0	6.0	9.4	1 3/8 x 2 5/8
1,200	DCMX122U063AB2B	27.0	15.0	6.7	10.3	1 3/8 x 3 1/8
14,000	DCMX143U063AC2B	19.0	11.0	8.1	11.9	1 3/8 x 4 1/8
19,000	DCMX193U063BB2B	21.0	13.0	9.2	12.4	2 x 3 1/8
20,000	DCMX203U063AF2B	15.0	8.8	9.3	12.5	1 3/8 x 5 5/8
28,000	DCMX283U063EC2B	14.0	9.0	10.3	13.0	1 3/4 x 4 1/8
36,000	DCMX363U063BC2B	14.0	8.7	11.5	15.2	2 x 4 1/8
55,000	DCMX553U063BF2B	10.0	6.2	14.6	17.5	2 x 5 5/8
60,000	DCMX603U063CC2B	10.0	6.6	15.6	19.2	2 1/2 x 4 1/8
91,000	DCMX913U063CF2B	6.8	4.8	20.0	25.9	2 1/2 x 5 5/8
89,000	DCMX893U063DC2B	10.0	7.5	18.0	21.9	3 x 4 1/8
120,000	DCMX124U063DE2B	7.4	5.9	21.3	26.6	3 x 5 1/8
140,000	DCMX144U063DF2B	6.7	5.3	23.2	28.9	3 x 5 5/8
150,000	DCMX154U063DP2B	6.5	5.1	23.7	29.5	3 x 5 7/8
210,000	DCMX214U063DG2B	12.0	8.4	21.3	27.6	3 x 8 5/8

75Vdc - 95 Vdc Surge

3,000	DCMX302U075AK2B	100	52.0	3.2	5.6	1 3/8 x 1 5/8
5,000	DCMX502U075AA2B	58.0	30.0	4.4	4.7	1 3/8 x 2 1/8
7,000	DCMX702U075AH2B	44.0	23.0	5.3	9.1	1 3/8 x 2 5/8
9,000	DCMX902U075AB2B	36.0	19.0	5.9	10.0	1 3/8 x 3 1/8
13,000	DCMX133U075AC2B	26.0	14.0	7.2	11.6	1 3/8 x 4 1/8
18,000	DCMX183U075BB2B	23.1	14.0	8.9	12.9	2 x 3 1/8
19,000	DCMX193U075AF2B	18.9	12.0	7.8	11.2	1 3/8 x 5 5/8
23,000	DCMX233U075EC2B	16.9	11.0	9.8	13.0	1 3/4 x 4 1/8
27,000	DCMX273U075BC2B	15.9	11.0	11.0	15.0	2 x 4 1/8
41,000	DCMX413U075BF2B	11.3	7.4	14.6	17.5	2 x 5 5/8
45,000	DCMX453U075CC2B	11.6	7.6	14.7	19.2	2 1/2 x 4 1/8
68,000	DCMX683U075CF2B	8.1	5.4	20.0	25.9	2 1/2 x 5 5/8
68,000	DCMX683U075DC2B	10.1	7.5	18.0	21.9	3 x 4 1/8
90,000	DCMX903U075DE2B	8.2	5.9	21.3	26.6	3 x 5 1/8
100,000	DCMX104U075DF2B	7.4	5.3	23.2	28.9	3 x 5 5/8
110,000	DCMX114U075DP2B	7.1	5.1	23.7	29.5	3 x 5 7/8
140,000	DCMX144U075DG2B	12.0	8.4	21.3	27.6	3 x 8 5/8

100Vdc - 125 Vdc Surge

1,700	DCMX172U100AK2B	120	53.0	2.8	5.4	1 3/8 x 1 5/8
3,100	DCMX312U100AA2B	68.0	31.0	4.0	7.5	1 3/8 x 2 1/8
4,500	DCMX452U100AH2B	51.0	24.0	4.8	8.8	1 3/8 x 2 5/8
5,900	DCMX592U100AB2B	42.0	20.0	5.4	9.7	1 3/8 x 3 1/8
8,600	DCMX862U100AC2B	29.4	14.0	6.5	11.3	1 3/8 x 4 1/8
12,000	DCMX123U100BB2B	26.0	18.5	7.7	9.7	2 x 3 1/8
13,000	DCMX133U100AF2B	24.0	12.0	7.2	12.1	1 3/8 x 5 5/8
16,000	DCMX163U100EC2B	18.6	11.0	8.9	12.8	1 3/4 x 4 1/8
18,000	DCMX183U100BC2B	17.5	12.6	10.5	13.0	2 x 4 1/8
28,000	DCMX283U100BF2B	12.2	11.0	14.0	17.3	2 x 5 5/8
30,000	DCMX303U100CC2B	11.0	8.0	15.2	18.8	2 1/2 x 4 1/8
45,000	DCMX453U100DC2B	9.9	7.9	18.1	21.4	3 x 4 1/8
46,000	DCMX463U100CF2B	8.0	5.5	20.1	25.5	2 1/2 x 5 5/8
60,000	DCMX603U100DE2B	8.8	6.1	20.6	26.2	3 x 5 1/8
68,000	DCMX683U100DF2B	7.9	5.5	22.5	28.5	3 x 5 5/8
74,000	DCMX743U100DP2B	7.4	5.1	23.3	29.4	3 x 5 7/8
96,000	DCMX963U100DG2B	13.2	8.6	20.9	27.4	3 x 8 5/8

150Vdc - 180 Vdc Surge

760	DCMX761U150AK2B	184	102	2.3	3.6	1 3/8 x 1 5/8
1,100	DCMX112U150AA2B	102	57.2	3.2	5.0	1 3/8 x 2 1/8
1,600	DCMX162U150AH2B	71.0	39.9	3.8	6.0	1 3/8 x 2 5/8
2,100	DCMX212U150AB2B	74.0	44.0	4.3	6.7	1 3/8 x 3 1/8
3,100	DCMX312U150AC2B	37.7	21.6	5.8	8.4	1 3/8 x 4 1/8
4,400	DCMX442U150BB2B	32.2	20.5	7.0	9.2	2 x 3 1/8
4,700	DCMX472U150AF2B	26.4	15.5	7.9	11.4	1 3/8 x 5 5/8
5,300	DCMX532U150EC2B	23.3	14.4	8.3	11.2	1 3/4 x 4 1/8
6,700	DCMX672U150BC2B	21.5	13.9	9.4	12.4	2 x 4 1/8
10,000	DCMX103U150BF2B	14.9	9.8	12.7	16.5	2 x 5 5/8
11,000	DCMX113U150CC2B	17.3	12.7	12.1	14.9	2 1/2 x 4 1/8
17,000	DCMX173U150CF2B	12.7	8.8	16.0	20.2	2 1/2 x 5 5/8
17,000	DCMX173U150DC2B	20.2	14.2	12.7	15.9	3 x 4 1/8
22,000	DCMX223U150DE2B	15.4	10.9	15.6	19.5	3 x 5 1/8
25,000	DCMX253U150DF2B	11.8	9.8	18.4	21.3	3 x 5 5/8
26,000	DCMX263U150DP2B	11.0	9.1	19.1	22.1	3 x 5 7/8
43,000	DCMX433U150DG2B	14.0	8.9	19.9	26.8	3 x 8 5/8

200Vdc - 250 Vdc Surge

440	DCMX441U200AK2B	184	102	1.9	2.7	1 3/8 x 1 5/8
800	DCMX801U200AA2B	102	57.2	2.7	4.0	1 3/8 x 2 1/8
1,200	DCMX122U200AH2B	71.0	39.9	3.5	5.1	1 3/8 x 2 5/8
1,500	DCMX152U200AB2B	54.6	30.9	4.3	6.3	1 3/8 x 3 1/8
2,200	DCMX222U200AC2B	37.7	21.6	5.8	8.4	1 3/8 x 4 1/8
3,100	DCMX312U200BB2B	32.2	20.5	7.0	9.2	2 x 3 1/8
3,300	DCMX332U200AF2B	26.4	15.5	7.9	11.4	1 3/8 x 5 5/8

Computer Grade, -40°C +85°C, High Capacitance, Type DCMX

200Vdc - 250 Vdc Surge (continued)

Cap. µF	Catalog Number	ESR Max mΩ @25°C 120 Hz	ESR Max mΩ @25°C 20kHz	Ripple A @85°C 120Hz	Ripple A @85°C 20kHz	Nominal Size (in.) D x L
4,000	DCMX402U200EC2B	23.3	14.4	8.3	11.2	1 3/4 x 4 1/8
4,700	DCMX472U200BC2B	21.5	13.9	9.4	12.4	2 x 4 1/8
7,200	DCMX722U200BF2B	14.9	9.8	12.7	16.5	2 x 5 5/8
7,800	DCMX782U200CC2B	17.3	12.7	12.1	14.9	2 1/2 x 4 1/8
12,000	DCMX123U200CF2B	12.7	8.8	16.0	20.2	2 1/2 x 5 5/8
12,000	DCMX123U200DC2B	20.2	14.2	12.7	15.9	3 x 4 1/8
16,000	DCMX163U200DE2B	15.4	10.9	15.6	19.5	3 x 5 1/8
18,000	DCMX183U200DF2B	11.8	9.8	18.4	21.3	3 x 5 5/8
19,000	DCMX193U200DP2B	11.0	9.1	19.1	22.1	3 x 5 7/8
25,000	DCMX253U200DG2B	14.5	8.9	19.9	26.8	3 x 8 5/8

250Vdc - 300 Vdc Surge

340	DCMX341U250AK2B	246	107	1.8	2.7	1 3/8 x 1 5/8
620	DCMX621U250AA2B	137	59.9	2.3	3.9	1 3/8 x 2 1/8
900	DCMX901U250AH2B	94.8	41.8	3.0	5.0	1 3/8 x 2 5/8
1,200	DCMX122U250AB2B	72.8	32.4	3.7	6.1	1 3/8 x 3 1/8
1,700	DCMX172U250AC2B	50.1	22.6	5.0	8.2	1 3/8 x 4 1/8
2,400	DCMX242U250BB2B	41.2	21.2	6.2	9.0	2 x 3 1/8
2,600	DCMX262U250AF2B	34.7	16.2	6.9	11.1	1 3/8 x 5 5/8
3,100	DCMX312U250EC2B	30.2	14.9	7.3	11.0	1 3/4 x 4 1/8
3,700	DCMX372U250BC2B	27.4	14.4	8.4	12.2	2 x 4 1/8
5,600	DCMX562U250BF2B	18.7	10.2	11.3	16.2	2 x 5 5/8
6,000	DCMX602U250CC2B	22.3	13.0	10.6	14.7	2 1/2 x 4 1/8
9,000	DCMX902U250DC2B	23.0	14.4	11.9	15.8	3 x 4 1/8
9,200	DCMX922U250CF2B	15.2	9.0	14.6	20.0	2 1/2 x 5 5/8
12,000	DCMX123U250DE2B	17.4	11.0	14.6	19.4	3 x 5 1/8
14,000	DCMX143U250DF2B	13.4	9.9	17.3	21.2	3 x 5 5/8
15,000	DCMX153U250DP2B	12.5	9.3	17.9	21.9	3 x 5 7/8
19,000	DCMX193U250DG2B	16.3	9.0	18.8	26.7	3 x 8 5/8

300Vdc - 350 Vdc Surge

260	DCMX261U300AK2B	373	238	1.3	1.8	1 3/8 x 1 5/8
430	DCMX431U300AA2B	228	146	1.8	2.5	1 3/8 x 2 1/8
620	DCMX621U300AH2B	158	101	2.3	3.2	1 3/8 x 2 5/8
810	DCMX811U300AB2B	122	77.8	2.9	4.0	1 3/8 x 3 1/8
1,200	DCMX122U300AC2B	83.2	53.5	3.9	5.4	1 3/8 x 4 1/8
1,600	DCMX162U300BB2B	66.9	45.3	4.8	6.2	2 x 3 1/8
1,800	DCMX182U300AF2B	57.1	37.1	5.4	7.4	1 3/8 x 5 5/8
2,000	DCMX202U300EC2B	53.3	35.4	5.5	7.1	1 3/4 x 4 1/8
2,500	DCMX252U300BC2B	44.1	30.0	6.6	8.4	2 x 4 1/8
3,800	DCMX382U300BF2B	29.7	20.4	9.0	11.4	2 x 5 5/8
4,100	DCMX412U300CC2B	27.3	18.7	9.6	12.3	2 1/2 x 4 1/8
6,200	DCMX622U300DC2B	28.8	23.0	10.6	12.5	3 x 4 1/8
6,300	DCMX632U300CF2B	18.2	12.6	13.3	16.9	2 1/2 x 5 5/8
8,300	DCMX832U300DE2B	21.7	17.4	13.1	15.4	3 x 5 1/8
9,400	DCMX942U300DF2B	19.4	15.6	14.4	16.9	3 x 5 5/8
10,000	DCMX103U300DP2B	18.0	14.5	14.9	17.5	3 x 5 7/8
15,000	DCMX153U300DG2B	14.8	12.1	19.8	23.1	3 x 8 5/8

350Vdc - 400 Vdc Surge

200	DCMX201U350AK2B	485	323	1.1	1.5	1 3/8 x 1 5/8
330	DCMX331U350AA2B	297	198	1.6	2.1	1 3/8 x 2 1/8
480	DCMX481U350AH2B	206	137	2.0	2.8	1 3/8 x 2 5/8
620	DCMX621U350AB2B	158	105	2.5	3.4	1 3/8 x 3 1/8
920	DCMX921U350AC2B	108	72.2	3.4	4.6	1 3/8 x 4 1/8
1,300	DCMX132U350BB2B	85.0	58.9	4.3	5.4	2 x 3 1/8
1,400	DCMX142U350AF2B	73.8	49.7	4.7	6.4	1 3/8 x 5 5/8
1,500	DCMX152U350EC2B	68.2	46.7	4.9	6.2	1 3/4 x 4 1/8
1,900	DCMX192U350BC2B	55.9	38.9	5.9	7.4	2 x 4 1/8
2,900	DCMX292U350BF2B	37.4	26.3	8.0	10.1	2 x 5 5/8
3,200	DCMX322U350CC2B	39.4	29.0	8.0	9.8	2 1/2 x 4 1/8
4,800	DCMX482U350CF2B	26.3	19.5	11.1	13.6	2 1/2 x 5 5/8
4,800	DCMX482U350DC2B	33.6	26.7	9.8	11.6	3 x 4 1/8
6,400	DCMX642U350DE2B	25.2	20.1	12.2	14.4	3 x 5 1/8

350Vdc - 400 Vdc Surge

7,200	DCMX722U350DF2B	22.5	18.0	13.3	15.7	3 x 5 5/8
7,900	DCMX792U350DP2B	20.8	16.7	13.9	16.3	3 x 5 7/8
12,000	DCMX123U350DG2B	17.0	13.8	18.4	21.6	3 x 8 5/8

400Vdc - 450 Vdc Surge

180	DCMX181U400AK2B	523	333	1.1	1.5	1 3/8 x 1 5/8
290	DCMX291U400AA2B	320	204	1.5	2.1	1 3/8 x 2 1/8
420	DCMX421U400AH2B	222	141	2.0	2.7	1 3/8 x 2 5/8
550	DCMX551U400AB2B	170	109	2.4	3.4	1 3/8 x 3 1/8
810	DCMX811U400AC2B	116	74.4	3.3	4.5	1 3/8 x 4 1/8
1,100	DCMX112U400BB2B	91.0	60.5	4.1	5.4	2 x 3 1/8
1,200	DCMX122U400AF2B	79.4	51.2	4.6	6.3	1 3/8 x 5 5/8
1,300	DCMX132U400EC2B	73.2	48.0	4.7	6.1	1 3/4 x 4 1/8
1,700	DCMX172U400BC2B	59.8	39.9	5.7	7.3	2 x 4 1/8
2,600	DCMX262U400BF2B	40.0	26.9	7.8	10.0	2 x 5 5/8
2,800	DCMX282U400CC2B	41.7	29.7	7.8	9.7	2 1/2 x 4 1/8
4,200	DCMX422U400DC2B	35.2	27.1	9.6	11.5	3 x 4 1/8
4,300	DCMX432U400CF2B	27.9	20.0	10.8	13.4	2 1/2 x 5 5/8
5,700	DCMX572U400DE2B	26.4	20.4	11.9	14.3	3 x 5 1/8
6,400	DCMX642U400DF2B	23.6	18.3	13.0	15.6	3 x 5 5/8
7,000	DCMX702U400DP2B	21.8	16.9	13.5	16.2	3 x 5 7/8
11,000	DCMX113U400DG2B	14.8	11.6	19.8	23.5	3 x 8 5/8

450Vdc - 500 Vdc Surge

150	DCMX151U450AK2B	681	463	0.9	1.3	1 3/8 x 1 5/8
240	DCMX241U450AA2B	416	283	1.3	1.8	1 3/8 x 2 1/8
350	DCMX351U450AH2B	288	196	1.7	2.3	1 3/8 x 2 5/8
460	DCMX461U450AB2B	221	151	2.1	2.8	1 3/8 x 3 1/8
680	DCMX681U450AC2B	151	103	2.9	3.9	1 3/8 x 4 1/8
930	DCMX931U450BB2B	116	81.4	3.7	4.6	2 x 3 1/8
1,000	DCMX102U450AF2B	103	70.5	4.0	5.3	1 3/8 x 5 5/8
1,100	DCMX112U450EC2B	94.1	65.3	4.1	5.3	1 3/4 x 4 1/8
1,400	DCMX142U450BC2B	76.3	53.5	5.0	6.3	2 x 4 1/8
2,200	DCMX222U450BF2B	50.8	35.9	6.9	8.6	2 x 5 5/8
2,300	DCMX232U450CC2B	51.8	37.9	7.0	8.6	2 1/2 x 4 1/8
3,500	DCMX352U450DC2B	41.9	32.6	8.8	10.5	3 x 4 1/8
3,600	DCMX362U450CF2B	34.5	25.4	9.7	11.9	2 1/2 x 5 5/8
4,700	DCMX472U450DE2B	31.4	24.5	10.9	13.0	3 x 5 1/8
5,300	DCMX532U450DF2B	28.0	21.9	12.0	14.3	3 x 5 5/8
5,800	DCMX582U450DP2B	25.9	20.3	12.4	14.8	3 x 5 7/8
9,000	DCMX902U450DG2B	17.4	13.8	18.2	21.6	3 x 8 5/8

500Vdc - 550 Vdc Surge

110	DCMX111U500AK2B	2106	1856	0.5	0.6	1 3/8 x 1 5/8
190	DCMX191U500AA2B	1287	1134	0.8	0.9	1 3/8 x 2 1/8
270	DCMX271U500AH2B	891	786	1.0	1.2	1 3/8 x 2 5/8
280	DCMX281U500EA2B	872	770	1.1	1.2	1 3/4 x 2 1/8
350	DCMX351U500AB2B	682	601	1.2	1.4	1 3/8 x 3 1/8
350	DCMX351U500BA2B	692	612	1.3	1.5	2 x 2 1/8
410	DCMX411U500EH2B	592	523	1.4	1.6	1 3/4 x 2 5/8
430	DCMX431U500AJ2B	552	487	1.4	1.7	1 3/8 x 3 5/8
520	DCMX521U500AC2B	464	409	1.6	1.9	1 3/8 x 4 1/8
520	DCMX521U500BH2B	470	416	1.7	1.9	2 x 2 5/8
560	DCMX561U500EB2B	434	383	1.7	2.0	1 3/4 x 3 1/8
600	DCMX601U500AD2B	401	353	1.9	2.2	1 3/8 x 4 5/8
680	DCMX681U500AE2B	352	311	2.1	2.4	1 3/8 x 5 1/8
710	DCMX711U500EJ2B	343	303	2.1	2.3	1 3/4 x 3 5/8
710	DCMX711U500BB2B	345	305	2.1	2.4	2 x 3 1/8
760	DCMX761U500AF2B	315	278	2.3	2.7	1 3/8 x 5 5/8
860	DCMX861U500EC2B	284	250	2.4	2.7	1 3/4 x 4 1/8
900	DCMX901U500BJ2B	272	241	2.5	2.8	2 x 3 5/8
1,000	DCMX102U500ED2B	242	213	2.7	3.1	1 3/4 x 4 5/8
1,100	DCMX112U500BC2B	225	199	3.1	3.3	2 x 4 1/8
1,200	DCMX122U500EE2B	211	186	3.1	3.4	1 3/4 x 5 1/8

Computer Grade, -55°C +85°C, High Capacitance, Type DCMX

500Vdc - 550 Vdc Surge (continued)

Cap. µF	Catalog Number	ESR Max mΩ @25°C 120 Hz	ESR Max mΩ @25°C 20kHz	Ripple A @85°C 120Hz	Ripple A @85°C 20kHz	Nominal Size (in.) D x L
1,200	DCMX122U500CB2B	218	195	3.1	3.4	2 1/2 x 3 1/8
1,300	DCMX132U500EF2B	187	165	3.4	3.8	1 3/4 x 5 5/8
1,300	DCMX132U500BD2B	192	170	3.3	3.7	2 x 4 5/8
1,500	DCMX152U500BE2B	168	148	3.7	4.1	2 x 5 1/8
1,500	DCMX152U500CJ2B	172	153	3.6	4.1	2 1/2 x 3 5/8
1,700	DCMX172U500BF2B	149	132	4.0	4.5	2 x 5 5/8
1,800	DCMX182U500CC2B	142	126	4.2	4.7	2 1/2 x 4 1/8
2,100	DCMX212U500CD2B	121	108	4.8	5.3	2 1/2 x 4 5/8
2,200	DCMX222U500DA2B	124	111	4.8	5.4	3 x 3 5/8
2,400	DCMX242U500CE2B	106	94.1	5.3	6.0	2 1/2 x 5 1/8
2,700	DCMX272U500CF2B	93.9	83.5	5.9	6.6	2 1/2 x 5 5/8
2,700	DCMX272U500DC2B	103	91.8	5.6	6.3	3 x 4 1/8
3,100	DCMX312U500DD2B	87.4	78.4	6.3	7.0	3 x 4 5/8
3,600	DCMX362U500DE2B	76.3	68.4	7.0	7.8	3 x 5 1/8
4,100	DCMX412U500DF2B	67.8	60.8	7.7	8.6	3 x 5 5/8
6,900	DCMX692U500DG2B	41.0	36.9	11.9	13.2	3 x 8 5/8

Ordering Information for Type DCMX

DCMX 492 U 063 AA 2 B S

Type: DCMX
Capacitance: 100 = 10µF; 101 = 100µF; 492 = 4900µF; 433 = 43,000µF
Tolerance: M = ±20; U = -10% +75%; T = -10% + 50%
Voltage: 6R3 = 6.3Vdc; 063 = 63Vdc; 100 = 100Vdc
Case Code: See table
Insulation: 0 = None; 1 = Polyester; 2 = PVC
Terminal: A = Low Post; B = High Post; D = High Current, Low Post; E = High Current, High Post
Can Style: Blank = Standard Can; S = Stud Bottom (See drawing)

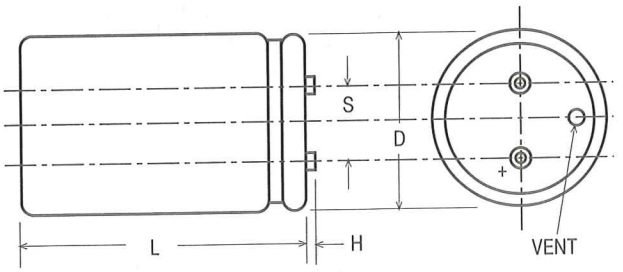
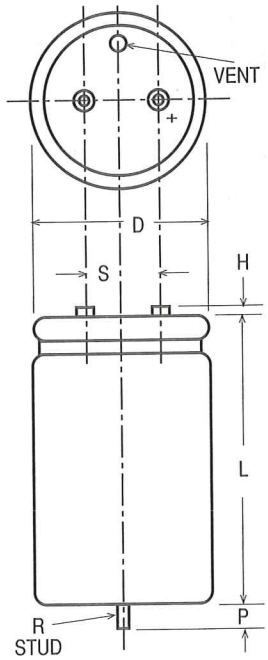


Table 2 - Terminals

Style	Code	H" (mm)	Thread	Max Amps
Low Post	A	0.094" (2.39)	10-32	30
High Post	B	0.281" (7.14)	10-32	30
High Current, Low Post	D	0.125" (3.18)	1/4-28	50
High Current, High Post	E	0.281" (7.14	1/4-28	50

With Stud-Mount Feature

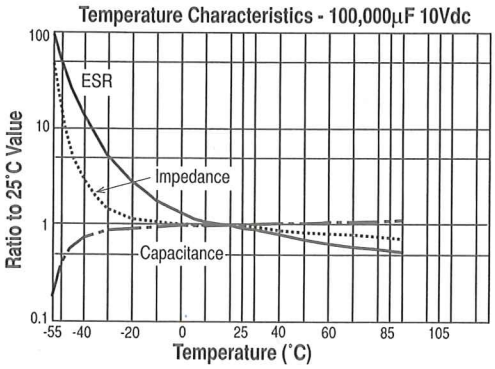


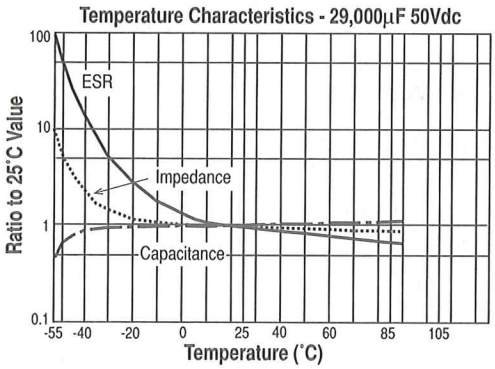
Case Diam	R Thread	P ± 0.039" (± 1.0 mm)
A*	M8	0.047" (12.0)
B*	M12	0.630" (16.0)
C*	M12	0.630" (16.0)
D*	M12	0.630" (16.0)
E*	NA	NA

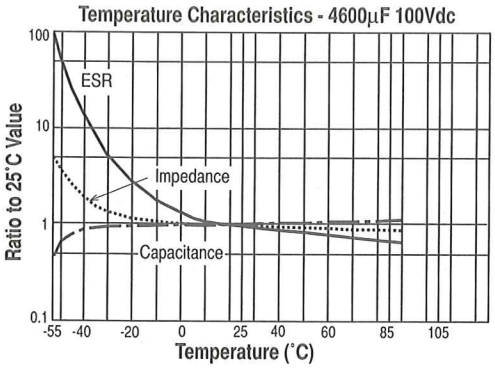
*Add Case Height Code from table
Note: With the stud-mount feature an insulating disk is inserted in the bottom under the outer insulating sleeve (if any).

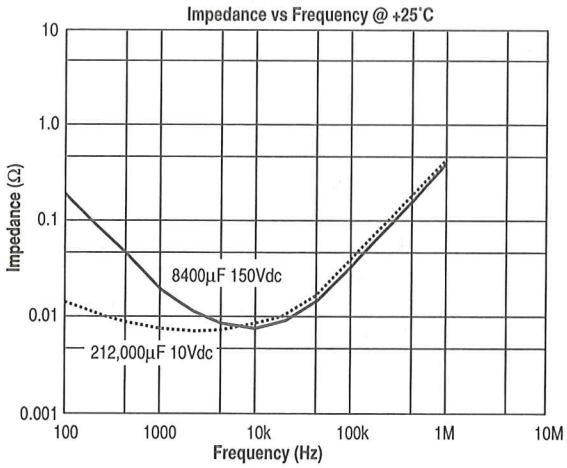
Uninsulated Case Dimensions for Types DCMX, 500X, 550, 101X, 139R & 125
For insulated case, add 0.24" (0.610 mm) to Diameter and 0.610" (0.762 mm) to height.

Case Code	Dimensions in Inches D±.031	L±.062	S ±.015	H max	Typ. Wt Oz	Dimensions in millimeters D ±.78	L±1.57	S ±.78	H max	Typ. Wt gr
AK	1.375	1.625	0.500		1.9	34.93	41.28	12.7		53.86
AA	1.375	2.125	0.500		2.0	34.93	53.98	12.7		56.70
AH	1.375	2.625	0.500		2.7	34.93	66.68	12.7		76.54
AB	1.375	3.125	0.500		3.3	34.93	79.38	12.7		93.55
AJ	1.375	3.625	0.500		3.8	34.93	92.08	12.7		107.73
AC	1.375	4.125	0.500	See	4.4	34.93	104.78	12.7	See	124.74
AD	1.375	4.625	0.500	Table	5.1	34.93	117.48	12.7	Table	144.58
AE	1.375	5.125	0.500	2	5.7	34.93	130.18	12.7	2	192.77
AF	1.375	5.625	0.500		6.4	34.93	142.88	12.7		229.63
EA	1.750	2.125	0.750		2.7	44.45	53.98	19.05		76.34
EH	1.750	2.625	0.750		3.8	44.45	68.68	19.05		107.73
EB	1.750	3.125	0.750		5.1	44.45	79.38	19.05		144.58
EJ	1.750	3.625	0.750		6.8	44.45	92.08	19.05		192.77
EC	1.750	4.125	0.750		8.1	44.45	104.78	19.05		229.63
ED	1.750	4.625	0.750		9.9	44.45	117.48	19.05		255.14
EE	1.750	5.125	0.750		9.5	44.45	130.18	19.05		269.32
EF	1.750	5.625	0.750		10.5	44.45	142.82	19.05		297.66
BA	2.000	2.125	0.875		2.7	50.80	53.98	22.23		153.08
BH	2.000	2.625	0.875		5.4	50.80	66.68	22.23		172.93
BB	2.000	3.125	0.875		6.1	50.80	79.38	22.23		192.77
BJ	2.000	3.625	0.875		6.8	50.80	92.08	22.23		232.46
BC	2.000	4.125	0.875		8.2	50.80	104.78	22.23		269.32
BD	2.000	4.625	0.875		9.6	50.80	117.48	22.23		292.00
BE	2.000	5.125	0.875		10.3	50.80	130.18	22.23		303.33
BF	2.000	5.625	0.875		13.0	50.80	142.88	22.23		368.54
CB	2.500	3.125	1.125		10.4	63.50	79.38	28.58		294.83
CJ	2.500	3.625	1.125		12.7	63.50	92.08	28.58		360.83
CC	2.500	4.125	1.125		15.0	63.50	104.78	28.58		425.24
CD	2.500	4.625	1.125		17.2	63.50	117.48	28.58		487.60
CE	2.500	5.125	1.125		19.3	63.50	130.18	28.58		547.14
CF	2.500	5.625	1.125		21.4	63.50	142.88	28.58		606.67
DJ	3.000	3.625	1.250		20.0	76.20	92.08	31.75		566.98
DC	3.000	4.125	1.250		22.2	76.20	104.78	31.75		629.35
DD	3.000	4.625	1.250		25.5	76.20	117.48	31.75		722.98
DE	3.000	5.125	1.250		30.0	76.20	130.18	31.75		850.47
DF	3.000	5.625	1.250		31.9	76.20	142.88	31.75		904.33
DP	3.000	5.875	1.250		32.9	76.20	149.23	31.75		931.26
DG	3.000	8.625	1.250		43.3	76.20	219.03	31.75		1227.49









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