

+105°C Crossover Network for General Audio Grade Applications. Miniature Axial Lead, Aluminum Electrolytic Capacitors

Features-

- +105°C Long Life
- Low DF at Crossover Frequencies
- For General Audio Applications

General Specifications-

Operating Temperature:

-40 to +105°C

Voltage Rating:

50 VNP (Non-Polar)

Capacitance Range:

1.5µF to 100µF

Capacitance Tolerance:

±20% (Std.)

Case Size Range:

6.3 X 13.0mm – 18.0 X 40.0mm

Termination:

20 ga. Axial leads.

Life Validation Test: 4,000hrs @ +105°C

Δ CAP ≤ 20% From initial measurement.

Δ ESR ≤ 1.5X Initial specified limit.

Δ DCL ≤ Initial specified limit.

Shelf Test: 1,000hrs @ +105°C

Δ CAP ≤ 20% From initial measurement.

Δ ESR ≤ 1.5X Initial specified limit.

Δ DCL ≤ 2X Initial specified limit.



DC Leakage Current:

$$I = 0.004CV + 3$$

Where:

I is in µA

C is in µF

V is in Volts

Ripple Current Multipliers:

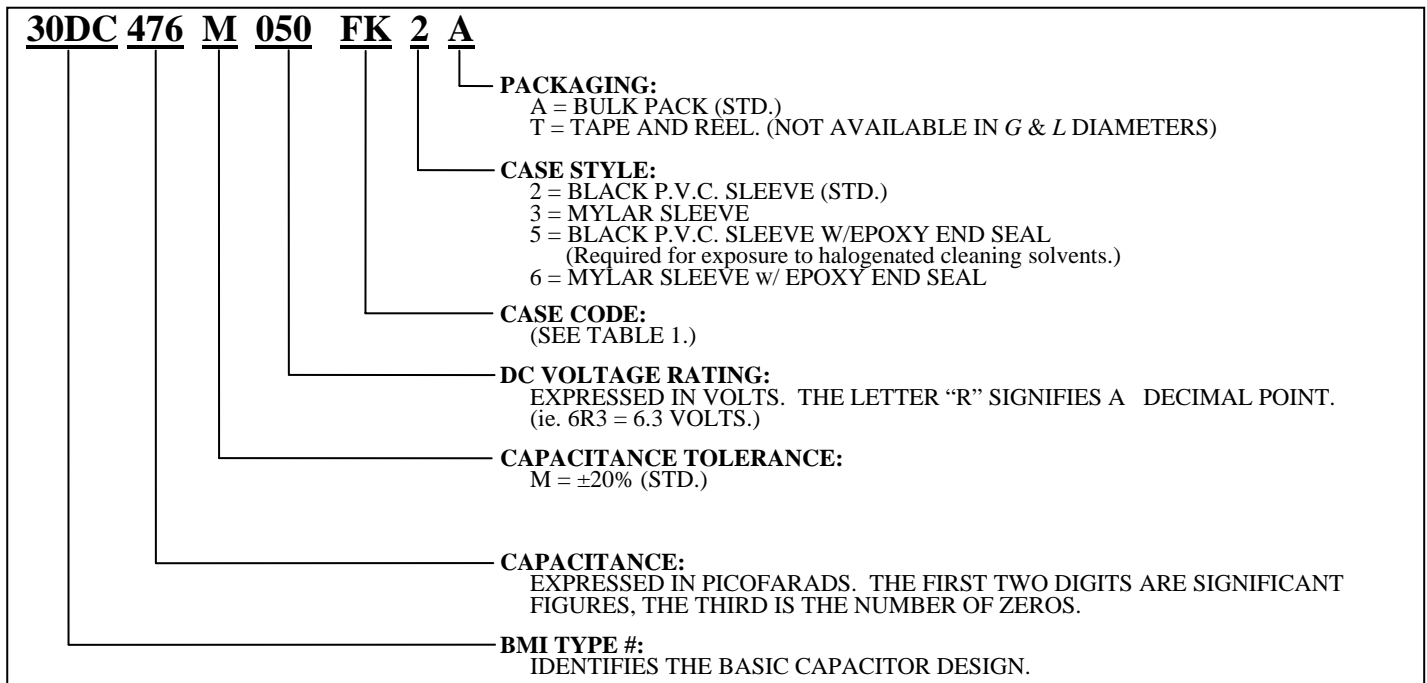
Temperature:

Ambient Temp.	+105°C	+85°C	±45°C
Multiplier	0.5	1.0	1.4

Frequency (Hz):

VDC	50-60	100-120	300-400	1k	10k
50	0.9	1.0	1.2	1.4	1.6

PART NUMBER BREAK-DOWN:



Axial-Leaded Capacitor Dimensions

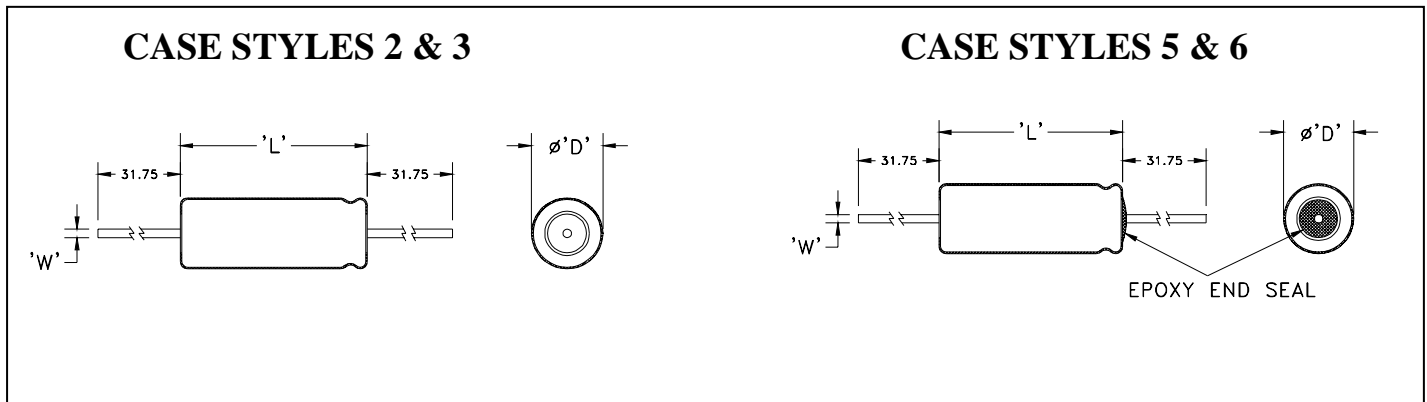


Table 1. Case Dimensions mm(in.)

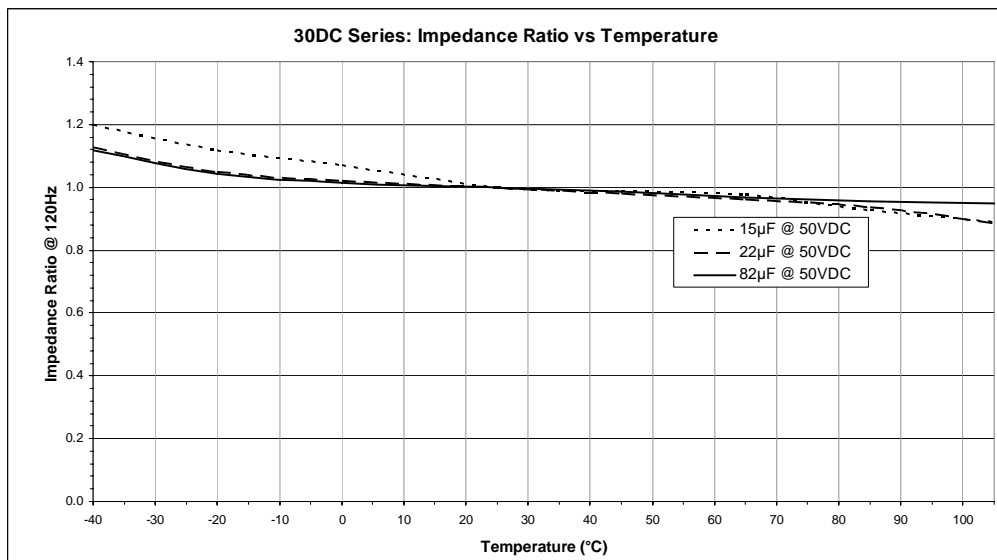
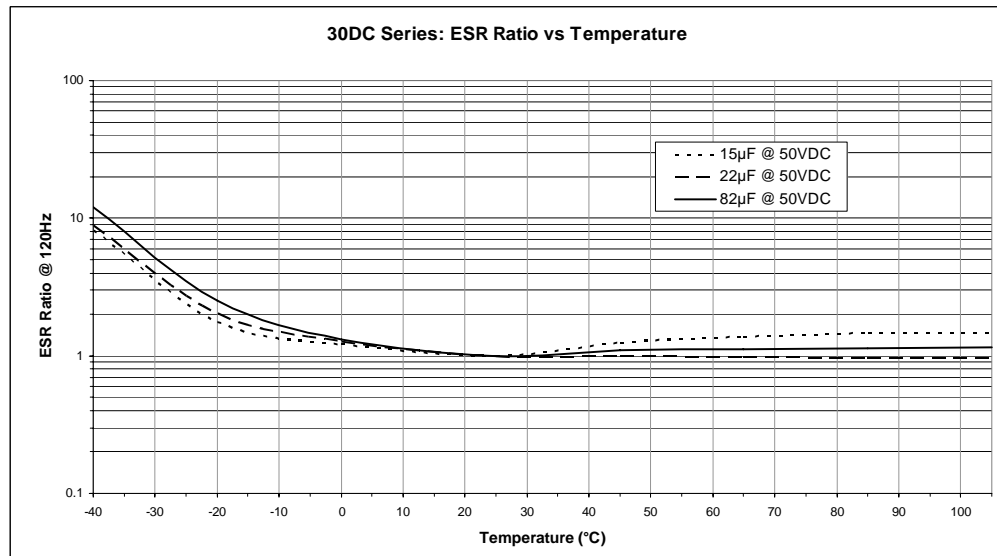
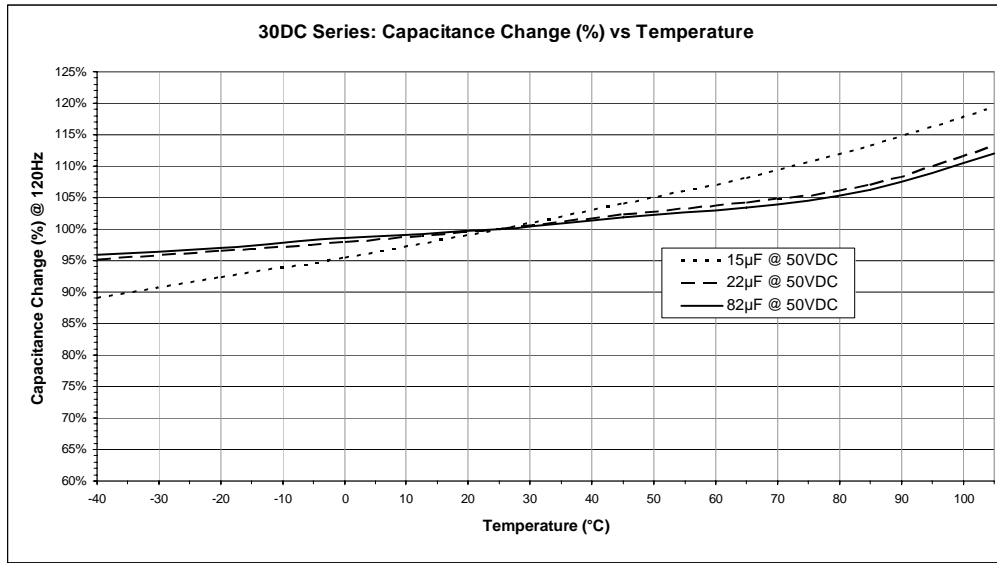
CASE CODE	NOMINAL		STYLES 2 & 3		STYLES 5 & 6 (w/EPOXY)		WIRE GAUGE 'W'
	'D'	'L'	'D' MAX.	'L' MAX.	'D' MAX.	'L' MAX.	
BA	6.3 (0.248)	13.0 (0.512)	7.0 (0.276)	14.4 (0.567)	7.0 (0.276)	15.9 (0.626)	No. 20 AWG (0.032)
BB	6.3 (0.248)	17.5 (0.689)	7.0 (0.276)	19.2 (0.756)	7.0 (0.276)	20.7 (0.815)	No. 20 AWG (0.032)
CB	8.0 (0.315)	17.5 (0.689)	8.6 (0.339)	19.2 (0.756)	8.6 (0.339)	20.7 (0.815)	No. 20 AWG (0.032)
CC	8.0 (0.315)	20.5 (0.807)	8.6 (0.339)	22.3 (0.878)	8.6 (0.339)	23.8 (0.937)	No. 20 AWG (0.032)
DB	9.5 (0.374)	17.5 (0.689)	10.2 (0.402)	19.2 (0.756)	10.2 (0.402)	20.7 (0.815)	No. 20 AWG (0.032)
DC	9.5 (0.374)	20.5 (0.807)	10.2 (0.402)	22.3 (0.878)	10.2 (0.402)	23.8 (0.937)	No. 20 AWG (0.032)
DD	9.5 (0.374)	24.0 (0.945)	10.2 (0.402)	25.5 (1.004)	10.2 (0.402)	27.0 (1.063)	No. 20 AWG (0.032)
DF	9.5 (0.374)	32.0 (1.260)	10.2 (0.402)	33.5 (1.319)	10.2 (0.402)	35.0 (1.378)	No. 20 AWG (0.032)
DH	9.5 (0.374)	38.0 (1.496)	10.2 (0.402)	39.8 (1.567)	10.2 (0.402)	41.3 (1.626)	No. 20 AWG (0.032)
EF	11.0 (0.433)	32.0 (1.260)	11.8 (0.465)	33.5 (1.319)	11.8 (0.465)	35.0 (1.378)	No. 20 AWG (0.032)
EH	11.0 (0.433)	38.0 (1.496)	11.8 (0.465)	39.8 (1.567)	11.8 (0.465)	41.3 (1.626)	No. 20 AWG (0.032)
FF	12.5 (0.492)	32.0 (1.260)	13.1 (0.516)	33.5 (1.319)	13.1 (0.516)	35.0 (1.378)	No. 20 AWG (0.032)
FH	12.5 (0.492)	38.0 (1.496)	13.1 (0.516)	39.8 (1.567)	13.1 (0.516)	41.3 (1.626)	No. 20 AWG (0.032)
FK	12.5 (0.492)	44.5 (1.752)	13.1 (0.516)	46.5 (1.831)	13.1 (0.516)	48.0 (1.890)	No. 20 AWG (0.032)
GH	16.0 (0.630)	38.0 (1.496)	16.6 (0.654)	39.8 (1.567)	16.6 (0.654)	41.3 (1.626)	No. 20 AWG (0.032)
GK	16.0 (0.630)	44.5 (1.752)	16.6 (0.654)	46.5 (1.831)	16.6 (0.654)	48.0 (1.890)	No. 20 AWG (0.032)
LR	18.0 (0.709)	36.0 (1.417)	18.7 (0.736)	37.8 (1.488)	18.7 (0.736)	39.0 (1.535)	No. 20 AWG (0.032)
LS	18.0 (0.709)	40.0 (1.575)	18.7 (0.736)	42.5 (1.673)	18.7 (0.736)	43.0 (1.693)	No. 20 AWG (0.032)

STANDARD RATINGS FOR TYPE 30DC

Rated Capacitance (μF)	Catalog Number	Nominal Case Size D x L (mm)	Max. ESR +25°C 1kHz (Ω)	Max. Ripple Current +85°C 1kHz (A_{rms})	Max. ESR +25°C 10kHz (Ω)	Max. Ripple Current +85°C 10kHz (A_{rms})
50 VOLTS DC WORKING; 63 VOLTS DC SURGE						
1.5	30DC155M050BA2A	6.3 x 13.0	5.504	0.104	5.366	0.105
2.7	30DC275M050BB2A	6.3 x 17.5	2.877	0.163	2.877	0.163
3.3	30DC335M050CB2A	8.0 x 17.5	2.295	0.209	2.365	0.206
4.7	30DC475M050CC2A	8.0 x 20.5	1.456	0.280	1.484	0.278
8.2	30DC825M050DC2A	9.5 x 20.5	0.778	0.424	0.830	0.411
10	30DC106M050DD2A	9.5 x 24.0	0.555	0.536	0.623	0.506
15	30DC156M050DF2A	9.5 x 32.0	0.337	0.778	0.402	0.712
22	30DC226M050DH2A	9.5 x 38.0	0.224	1.030	0.287	0.909
27	30DC276M050EF2A	11.0 x 32.0	0.160	1.228	0.260	0.963
39	30DC396M050EH2A	11.0 x 38.0	0.119	1.530	0.216	1.138
39	30DC396M050FH2A	12.5 x 38.0	0.102	1.776	0.206	1.253
47	30DC476M050FK2A	12.5 x 44.5	0.086	2.081	0.163	1.510
68	30DC686M050GH2A	16.0 x 38.0	0.061	2.662	0.121	1.882
82	30DC826M050GK2A	16.0 x 44.5	0.047	3.242	0.094	2.280
100	30DC107M050LS2A	18.0 x 40.0	0.036	3.792	0.073	2.653

30DC TYPICAL PERFORMANCE PROFILES

TEMPERATURE CHARACTERISTICS



30DC TYPICAL PERFORMANCE PROFILES

FREQUENCY CHARACTERISTICS

