MCF EMI Filter

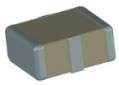
Up to 6A

SRT MICROCÉRAMIQUE
MLCC CAPACITORS

APPLICATIONS

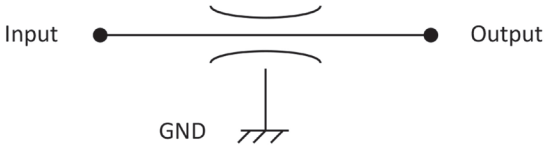
Our FeedThru Capacitors provide better EMI performance than SMD component due to lower inductance, which results in broader frequency response for :

- **Low speed signal lines**
- **Medium current power lines**
- **RF Immunity filter and amplifier gain filter**



RoHS compliant

EQUIVALENT CIRCUIT



ELECTRICAL PARAMETERS

ELECTRICAL CHARACTERISTICS:
at + 25°C unless otherwise specified

OPERATING TEMPERATURE:
- 55°C, + 125°C

TEMPERATURE COEFFICIENT:
NP0 : ± 30ppm
X7R : ± 15% with 0Vdc applied

DISSIPATION FACTOR:
X7R : ≤ 0.025 at 1kHz for C ≥ 1nF
≤ 0.025 at 1MHz for C ≤ 1nF
NP0 : ≤ 1.10^{-3} at 1Vrms and 1MHz for values ≤ 1000pF
≤ 1.10^{-3} at 1Vrms and 1KHz for values > 1000pF

INSULATION RESISTANCE (IR):
25°C/Un 10^5 MOhm or 1000 Ohm-Farad whichever is less
125°C/Un 10^4 MOhm or 100 Ohm-Farad whichever is less

DIELECTRIC STRENGTH TEST:

Performed per method 103 of EIA 198-2-E

QUICK REFERENCE DATA

	0603		0805		1206		1806		1812		2220	
	NP0	X7R	NP0	X7R	NP0	X7R	NP0	X7R	NP0	X7R	NP0	X7R
50V	1pF - 270pF	47pF - 6.8nF	10pF - 1.5nF	100pF - 47nF	22pF - 3.3nF	220pF - 150nF	22pF - 5.6nF	220pF - 220nF	100pF - 18nF	1nF - 680nF	100pF - 33nF	1nF - 1.5µF
100V	1pF - 270pF	47pF - 5.6nF	10pF - 1.5nF	100pF - 47nF	22pF - 3.3nF	220pF - 100nF	22pF - 4.7nF	220pF - 150nF	100pF - 15nF	1nF - 470nF	100pF - 33nF	1nF - 1µF
200V	1pF - 220pF	47pF - 2.7nF	10pF - 1nF	100pF - 22nF	22pF - 2.7nF	220pF - 56nF	22pF - 3.9nF	220pF - 68nF	100pF - 12nF	1nF - 270nF	100pF - 27nF	1nF - 620nF
500V	1pF - 47pF	47pF - 750pF	10pF - 390pF	100pF - 3.9nF	22pF - 1nF	220pF - 10nF	22pF - 1.5nF	220pF - 18nF	100pF - 6.8nF	1nF - 100nF	100pF - 15nF	1nF - 270nF
1000V			10pF - 120pF	100pF - 1.8nF	22pF - 390pF	220pF - 5.6nF	22pF - 560pF	220pF - 6.8nF	100pF - 3.3nF	1nF - 47nF	100pF - 10nF	1nF - 150nF

		ORDERING	0603	0805	1206	1806	1812	2220
CURRENT	NP0	/	1A	2A	2A	2A	3A	6A
	X7R	1	500mA	500mA	500mA	500mA	3A	6A
		2	1A	2A	2A	2A	/	/

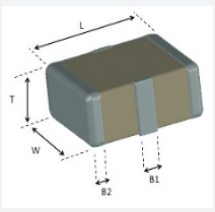
ORDERING INFORMATION

MCF	0805	Y	103	K	A	X	XX	B
SERIES	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE	TERMINATION	CURRENT	PACKAGING
	0603	A = NP0	Expressed in picofarads (pF).	J = ± 5%	A = 50V	F = Palladium-	/	B = 7'' reel
	0805	Y = X7R	The first two digits are	K = ± 10%	B = 100V	Silver	1	V = Bulk
	1206		significant, the third digit	M = ± 20%	C = 200V	X = Nickel Tin	2	
	1806		give the number of noughts.		E = 500V	P = Polymer Nickel Tin		
	1812		Example : 102 = 1 000pF		G = 1000V	C = Copper Tin		
	2220					W = Nickel Gold		

For other sizes contact us

DIMENSIONS IN MILLIMETERS

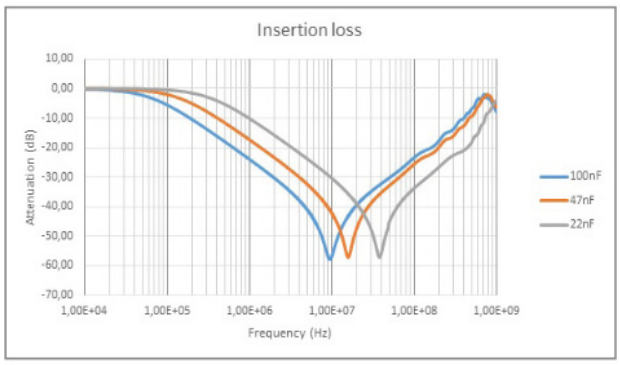
		0603	0805	1206	1806	1812	2220
LENGTH (L)		1.60 ± 0.2	2.00 ± 0.2	3.20 ± 0.2	4.50 ± 0.3	4.50 ± 0.3	5.70 ± 0.4
WIDTH (W)		0.80 ± 0.1	1.25 ± 0.2	1.60 ± 0.2	1.60 ± 0.3	3.20 ± 0.2	5.00 ± 0.4
THICKNESS (T)	MAX	0.9	1.25	1.60	1.60	3.20	4.00
TERMINATION	B1 MAX	0.60	0.80	1.30	1.70	2.00	2.00
	B2 MAX	0.30	0.30	0.50	0.50	0.50	0.50

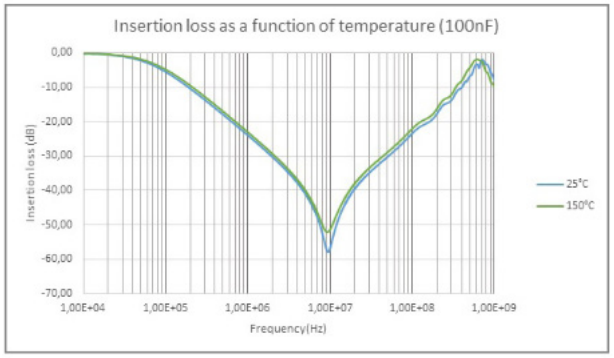


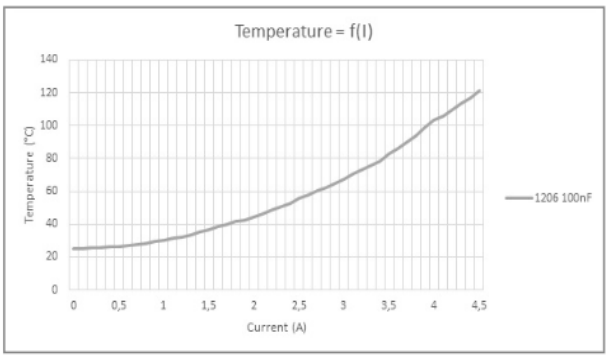
For P termination (Polymer type) add 0.20mm to all dimensions of the chip.

This document is subject to change without notice.

TYPICAL CHARACTERISTICS







SOLDER PATTERNS IN MILLIMETERS

	0603	0805	1206	1806	1812	2220
A	0.80	1.25	1.50	1.50	3.00	5.00
B	0.30	0.30	0.40	0.70	0.70	1.00
C	0.40	0.40	0.60	0.70	0.70	1.00
D	0.40	0.60	1.20	2.00	2.20	2.00