

EMI 3-Terminal Chip Capacitors

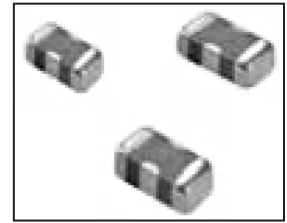
NMF Series

FEATURES

- LOW ESL CHARACTERISTICS
- EXCELLENT NOISE SUPPRESSION OVER BROAD FREQUENCY RANGE
- AVAILABLE IN EIA 0603, 0805 AND 1206 CASE SIZES
- HIGH CAPACITANCE AND CURRENT RATINGS FOR DC POWER LINE

**RoHS
Compliant**
includes all homogeneous materials

*See Part Number System for Details



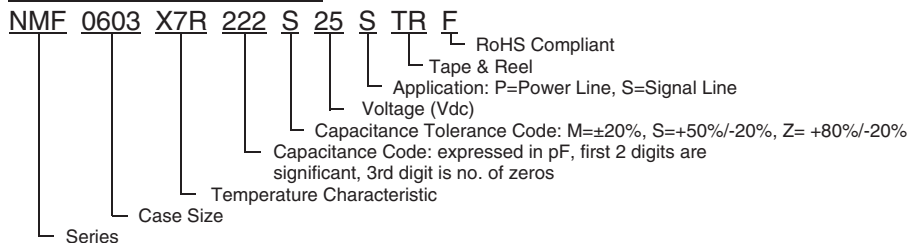
SIGNAL LINE TYPE STANDARD CASE SIZES AND VALUES

Size	Part Number	Capacitance (pF)	Tolerance	Rated Voltage (Vdc)	Rated Current (mA)	Insulation Resistance (MΩ)	DC Resistance (Ω)	Temperature Range (°C)	Thickness (mm)
0603	NMF0603X7R102S25STRF	1,000	+50%/-20%	25	300	1,000	0.3	-55 ~ +125	0.75
	NMF0603X7R222S25STRF	2,200	+50%/-20%	25	300	1,000	0.3	-55 ~ +125	0.75
	NMF0603X7R103S25STRF	10,000	+50%/-20%	25	1,000	1,000	0.3	-55 ~ +125	0.75
	NMF0603X7R223S25STRF	22,000	+50%/-20%	25	1,000	1,000	0.3	-55 ~ +125	0.75
	NMF0603X7R473S25STRF	47,000	+50%/-20%	25	1,000	1,000	0.3	-55 ~ +125	0.75
0805	NMF0805X7R471S50STRF	470	+50%/-20%	50	300	10,000	0.3	-55 ~ +125	1.00
	NMF0805X7R102S50STRF	1,000	+50%/-20%	50	300	10,000	0.3	-55 ~ +125	1.00
	NMF0805X7R222S50STRF	2,200	+50%/-20%	50	300	10,000	0.3	-55 ~ +125	1.00
	NMF0805X7R103S50STRF	10,000	+50%/-20%	50	1,000	10,000	0.3	-55 ~ +125	1.00
	NMF0805X7R223S50STRF	22,000	+50%/-20%	50	1,000	10,000	0.08	-55 ~ +125	1.00
	NMF0805X7R104S25STRF	100,000	+50%/-20%	25	1,000	1,000	0.1	-55 ~ +125	1.00
1206	NMF1206X7R471S50STRF	470	+50%/-20%	50	300	1,000	0.3	-55 ~ +125	1.05
	NMF1206X7R102S50STRF	1,000	+50%/-20%	50	300	1,000	0.3	-55 ~ +125	1.05
	NMF1206X7R222S50STRF	2,200	+50%/-20%	50	300	1,000	0.3	-55 ~ +125	1.05
	NMF1206X7R472S50STRF	4,700	+50%/-20%	50	300	1,000	0.3	-55 ~ +125	1.05
	NMF1206X7R103S50STRF	10,000	+50%/-20%	50	1,000	1,000	0.3	-55 ~ +125	1.05
	NMF1206X7R223S50STRF	22,000	+50%/-20%	50	1,000	1,000	0.3	-55 ~ +125	1.05
	NMF1206X7R473S50STRF	47,000	+50%/-20%	50	1,000	1,000	0.3	-55 ~ +125	1.05
	NMF1206X7R104S25STRF	100,000	+50%/-20%	25	1,000	1,000	0.1	-55 ~ +125	1.05

POWER LINE TYPE STANDARD CASE SIZES AND VALUES

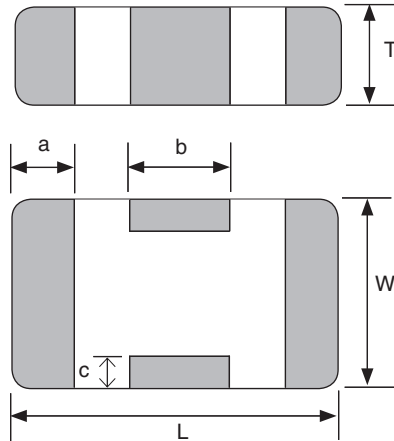
Size	Part Number	Capacitance (pF)	Tolerance	Rated Voltage (Vdc)	Rated Current (mA)	Insulation Resistance (MΩ)	DC Resistance (Ω)	Temperature Range (°C)	Thickness (mm)
0603	NMF0603X7R104M16PTRF	100,000	±20%	16	2,000	1,000	0.1	-55 ~ +125	0.75
	NMF0603X5R105M10PTRF	1,000,000	±20%	10	2,000	1,000	0.05	-55 ~ +85	0.75
	NMF0603X5R225M10PTRF	2,200,000	±20%	10	2,000	1,000	0.05	-55 ~ +85	0.75
0805	NMF0805X7R332S50PTRF	3,300	+50%/-20%	50	2,000	10,000	0.06	-55 ~ +125	1.20
	NMF0805Y5V104S25PTRF	100,000	+50%/-20%	25	2,000	1,000	0.05	-40 ~ +85	1.00
	NMF0805X5R105M10PTRF	1,000,000	±20%	10	4,000	500	0.02	-55 ~ +85	1.20
	NMF0805Y5V105Z16PTRF	1,000,000	+80%/-20%	16	3,000	500	0.04	-40 ~ +85	1.20
	NMF0805X5R475M10PTRF	4,700,000	±20%	10	4,000	500	0.05	-55 ~ +85	1.00
	NMF0805X5R106M6.3PTRF	10,000,000	±20%	6.3	4,000	500	0.05	-55 ~ +85	1.00

PART NUMBER SYSTEM

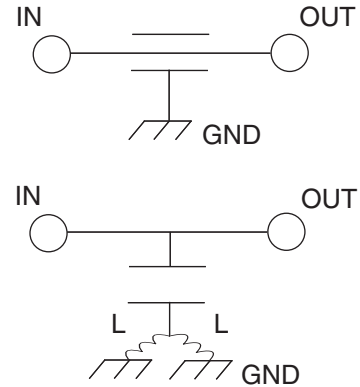


CASE DIMENSIONS (mm)

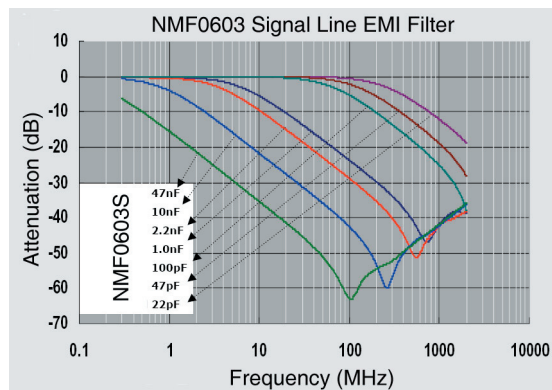
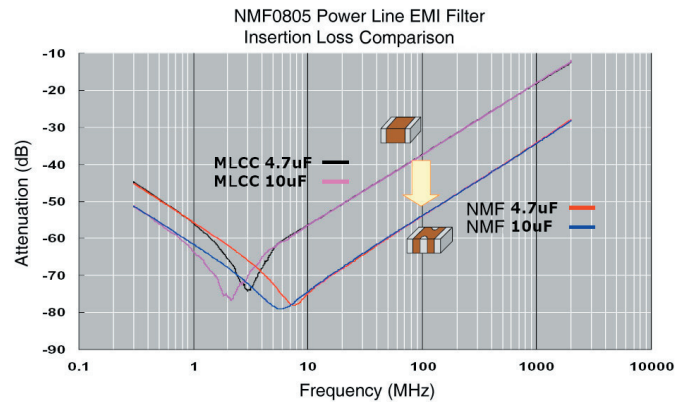
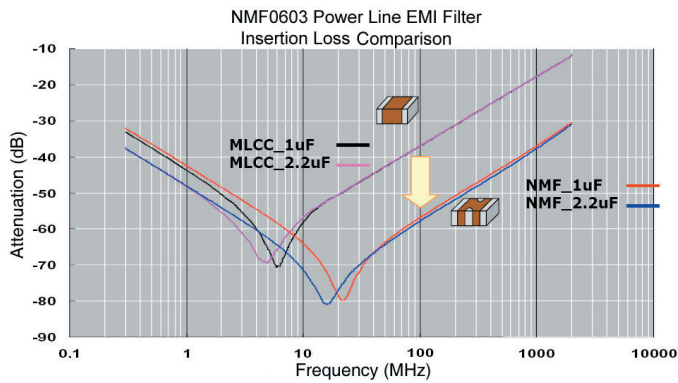
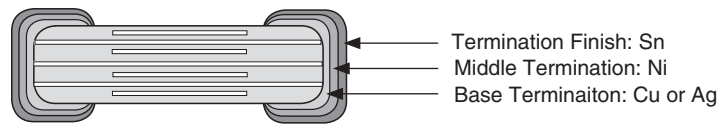
Series	L	W	T	a	b	c
NMF0603	1.6 ± 0.15	0.8 ± 0.1	0.6 ± 0.15	0.25 ± 0.15	0.5 ± 0.15	0.2 ± 0.1
NMF0805	2.0 ± 0.2	1.25 ± 0.2	0.80 ± 0.2	0.3 ± 0.20	0.6 ± 0.2	0.2 ± 0.1
			1.0 ± 0.2			
NMF1206	3.2 ± 0.2	1.6 ± 0.2	0.85 ± 0.2	0.4 ± 0.3	1.0 ± 0.3	0.3 ± 0.1



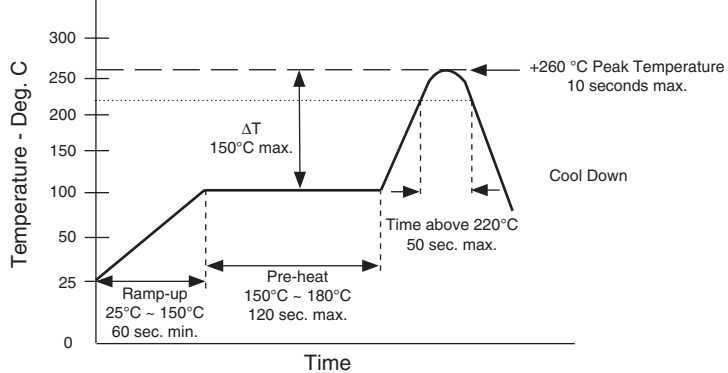
EQUIVALENT CIRCUIT



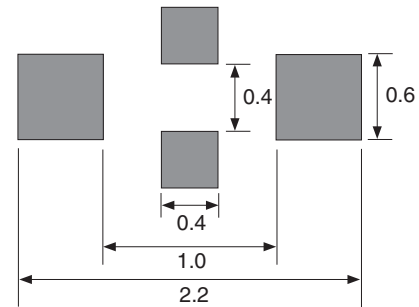
CONSTRUCTION



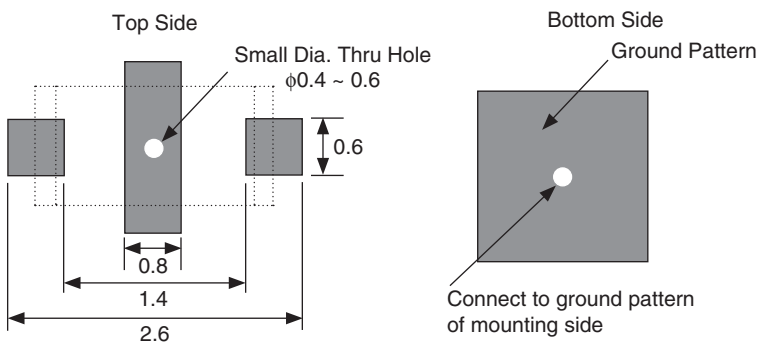
RECOMMENDED REFLOW PROFILE



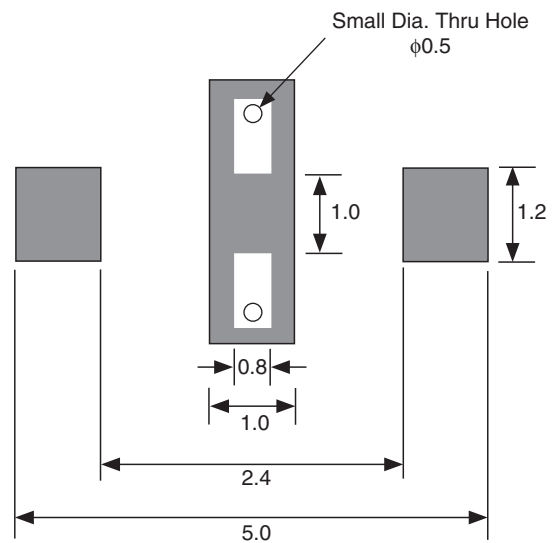
0603 Land Pattern Dimensions (mm)



0805 Land Pattern Dimensions (mm)



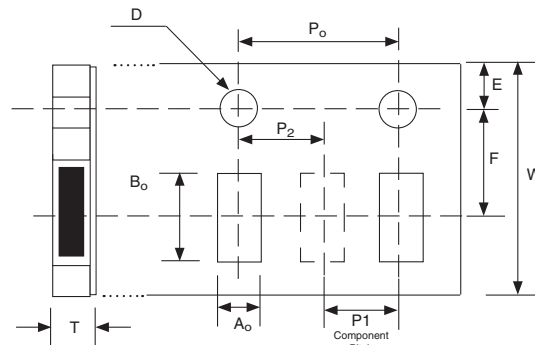
1206 Land Pattern Dimensions (mm)



CARDBOARD CARRIER TAPE DIMENSIONS (mm)

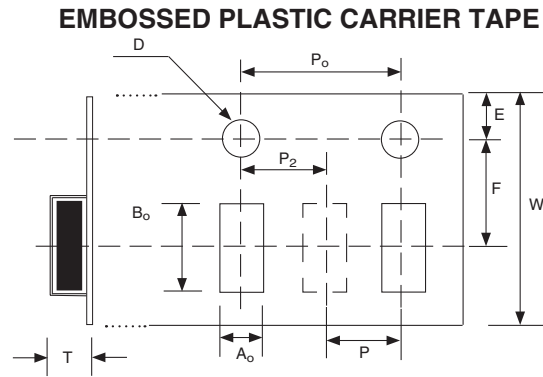
Type	A_o	B_o	W	F	E	P1	P2	P0	D0	T max.	Reel Qty
0603	1.1 ± 0.2	1.9 ± 0.2	8.0 ± 0.2	3.5 ± 0.05	1.75 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	4.0 ± 0.1	$1.5 +0.1$	0.85	4,000
0805	1.45 ± 0.2	2.4 ± 0.2								1.05	4,000
1206	2.0 ± 0.2	3.6 ± 0.2								1.05	3,000

CARDBOARD CARRIER TAPE



EMBOSSED PLASTIC CARRIER TAPE DIMENSIONS (mm)

Type	Chip Thickness	A _o	B _o	W	F	E	P1	P2	P0	D0	T max.	Reel Qty
0603	1.0	1.5 ± 0.2	2.3 ± 0.2	8.0 ± 0.2	3.5 ± 0.05	1.75 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	4.0 ± 0.1	1.5 +0.1	2.0	3,000
0805	1.2											2,000



REEL DIMENSIONS (mm)

A	B	C	D	E	W
180 ± 2.0	50 min.	13.0 ± 0.5	21.0 ± 0.8	2.0 ± 0.5	10 ± 1.5

