

# XMPL

## Aluminum Polymer Capacitors

SMD Solid Conductive (multilayer-type)



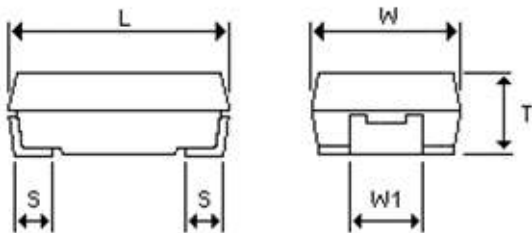
### FEATURES

Small Size – Low Impedance – Halogen Free Epoxy – RoHS Compliant – Stable with Temperature, Applied Voltage and Frequency

### APPLICATIONS

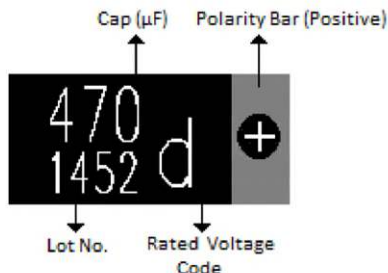
Decoupling – Noise Suppression

<b>Operating Temperature Range</b>		<b>-55°C to +105°C</b>										
<b>Capacitance Tolerance</b>		<b>±20% (M), -35% +10% (Y)</b> <b>120 Hz, 20°C</b>										
<b>Surge Voltage</b>	<b>WVDC</b>	2	2.5	4	6.3	10	12.5	16	20	25	35	
	<b>SVDC</b>	1.25*WVDC (+85°C)										
<b>Dissipation Factor</b>	<b>WVDC</b>	2	2.5	4	6.3	10	12.5	16	20	25	35	
	<b>Tan δ</b>	≤ 0.06 (120 Hz, +20°C)										
<b>Leakage Current (25°C) MAX</b>		<b>Time</b>	<b>&lt;10 VDC</b>					<b>≥10 VDC</b>				
		<b>2 Minutes</b>	0.1CV					0.3CV				
<b>Load Life</b>		<b>2000 hours at 105°C with rated WVDC applied</b>										
		<b>Capacitance Change</b>	≤20% of initial measured value									
		<b>Dissipation Factor</b>	≤200% of maximum specified value									
		<b>Leakage Current</b>	≤ 6.3V	≤300% of maximum specified value					≥ 10V	≤100% of maximum specified value		
<b>Moisture Resistance Test</b>		<b>500 hours at 60°C and 90% relative Humidity with no voltage applied</b>										
		<b>Capacitance Change</b>	≤20% to +70% of initially measured value									
		<b>Dissipation Factor</b>	≤200% of maximum specified value									
		<b>Leakage Current</b>	≤ 6.3V	≤100% of maximum specified value					≥ 10V	≤200% of initially measured value		
<b>Ripple Current Multipliers</b>		<b>T ≤ 45°C</b>			<b>45°C &lt; T ≤ 85°C</b>			<b>85°C &lt; T ≤ 105°C</b>				
		2V~6.3V	2			1.5			1			
		10V~35V	1.5			1.3			1			

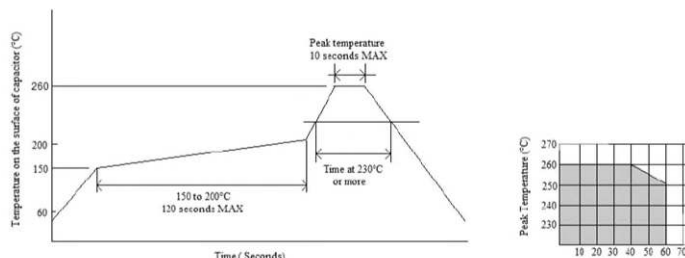


Case size	EIA Code	L±0.3	W±0.2	T±0.2	W1±0.1	S±0.3
G19	7343	7.3	4.3	1.9	2.4	1.3

### Markings



### Recommended soldering profile



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# XMPL

+105°C Multi-layer Low Profile Chip

WVDC	Capacitance (µF)	IC PART NUMBER	Maximum ESR (Ω) 120 Hz, +20°C	Maximum ESR (mΩ) 100 kHz, +20°C	Leakage Current (µA)	Maximum RMS Ripple Current (A) 100 kHz, +105°C	Dimensions LxHxT (mm)
2	100	107XMPL002MG19	0.9947	16	20	2	7.3x4.3x1.9
2	150	157XMPL002MG19	0.6631	9	30	3	7.3x4.3x1.9
2	180	187XMPL002MG19	0.5526	9	36	2.7	7.3x4.3x1.9
2	220	227XMPL002MG19	0.4521	15	44	3	7.3x4.3x1.9
2	270	277XMPL002MG19H	0.3684	12	54	3	7.3x4.3x1.9
2	270	277XMPL002MG19R	0.3684	6	54	3	7.3x4.3x1.9
2	270	277XMPL002MG19X	0.3684	9	54	3	7.3x4.3x1.9
2	330	337XMPL002MG19H	0.3014	12	66	3	7.3x4.3x1.9
2	330	337XMPL002MG19A	0.3014	4.5	66	3	7.3x4.3x1.9
2	330	337XMPL002MG19R	0.3014	6	66	3	7.3x4.3x1.9
2	330	337XMPL002MG19X	0.3014	9	66	3	7.3x4.3x1.9
2	390	397XMPL002MG19A	0.2551	4.5	78	3	7.3x4.3x1.9
2	390	397XMPL002MG19R	0.2551	6	78	3	7.3x4.3x1.9
2	390	397XMPL002MG19X	0.2551	9	78	3	7.3x4.3x1.9
2	470	477XMPL002MG19X	0.2116	9	94	3	7.3x4.3x1.9
2	470	477XMPL002MG19A	0.2116	4.5	94	3	7.3x4.3x1.9
2	470	477XMPL002MG19R	0.2116	6	94	3	7.3x4.3x1.9
2.5	150	157XMPL2R5MG19	0.6631	9	37.5	3	7.3x4.3x1.9
2.5	180	187XMPL2R5MG19	0.5526	9	45	3	7.3x4.3x1.9
2.5	220	227XMPL2R5MG19X	0.4521	9	55	3	7.3x4.3x1.9
2.5	220	227XMPL2R5MG19H	0.4521	12	55	3	7.3x4.3x1.9
2.5	220	227XMPL2R5MG19R	0.4521	7	55	3	7.3x4.3x1.9
2.5	270	277XMPL2R5MG19R	0.3684	7	67.5	3	7.3x4.3x1.9
2.5	270	277XMPL2R5MG19X	0.3684	9	67.5	3	7.3x4.3x1.9
2.5	270	277XMPL2R5MG19H	0.3684	12	67.5	3	7.3x4.3x1.9
2.5	330	337XMPL2R5MG19X	0.3014	9	82.5	3	7.3x4.3x1.9
2.5	330	337XMPL2R5MG19H	0.3014	12	82.5	3	7.3x4.3x1.9
2.5	330	337XMPL2R5MG19A	0.3014	4.5	82.5	3	7.3x4.3x1.9
2.5	330	337XMPL2R5MG19R	0.3014	6	82.5	3	7.3x4.3x1.9
2.5	390	397XMPL2R5MG19H	0.2551	12	97.5	3	7.3x4.3x1.9
2.5	390	397XMPL2R5MG19X	0.2551	9	97.5	3	7.3x4.3x1.9
2.5	390	397XMPL2R5MG19A	0.2551	4.5	97.5	3	7.3x4.3x1.9
2.5	390	397XMPL2R5MG19R	0.2551	6	97.5	3	7.3x4.3x1.9
2.5	470	477XMPL2R5YG19H	0.2116	12	117.5	3	7.3x4.3x1.9
2.5	470	477XMPL2R5YG19R	0.2116	6	117.5	3	7.3x4.3x1.9
2.5	470	477XMPL2R5YG19X	0.2116	9	117.5	3	7.3x4.3x1.9
2.5	470	477XMPL2R5YG19A	0.2116	4.5	117.5	3	7.3x4.3x1.9
4	68	686XMPL004MG19	1.4628	20	27.2	1.9	7.3x4.3x1.9
4	82	826XMPL004MG19	1.2131	9	32.8	3	7.3x4.3x1.9
4	100	107XMPL004MG19	0.9947	9	40	3	7.3x4.3x1.9
4	150	157XMPL004MG19R	0.6631	7	60	3	7.3x4.3x1.9
4	150	157XMPL004MG19X	0.6631	9	60	3	7.3x4.3x1.9
4	150	157XMPL004MG19	0.6631	12	60	3	7.3x4.3x1.9
4	180	187XMPL004MG19X	0.5526	9	72	3	7.3x4.3x1.9
4	180	187XMPL004MG19R	0.5526	7	72	3	7.3x4.3x1.9
4	180	187XMPL004MG19H	0.5526	12	72	3	7.3x4.3x1.9
4	220	227XMPL004MG19H	0.4521	12	88	3	7.3x4.3x1.9
4	220	227XMPL004MG19R	0.4521	7	88	3	7.3x4.3x1.9
4	220	227XMPL004MG19X	0.4521	9	88	3	7.3x4.3x1.9
4	270	277XMPL004MG19H	0.3684	12	108	2.7	7.3x4.3x1.9
4	270	277XMPL004MG19R	0.3684	7	108	2.7	7.3x4.3x1.9
4	270	277XMPL004MG19X	0.3684	9	108	2.7	7.3x4.3x1.9
4	330	337XMPL004YG19R	0.3014	7	132	2.7	7.3x4.3x1.9
4	330	337XMPL004YG19H	0.3014	12	132	2.7	7.3x4.3x1.9
4	330	337XMPL004YG19X	0.3014	9	132	2.7	7.3x4.3x1.9
6.3	10	106XMPL6R3MG19	9.9472	40	6.3	1	7.3x4.3x1.9
6.3	22	226XMPL6R3MG19	4.5214	35	13.86	1	7.3x4.3x1.9
6.3	33	336XMPL6R3MG19	3.0143	25	20.79	1.8	7.3x4.3x1.9

# XMPL

+105°C Multi-layer Low Profile Chip

WVDC	Capacitance (µF)	IC PART NUMBER	Maximum ESR (Ω) 120 Hz, +20°C	Maximum ESR (mΩ) 100 kHz, +20°C	Leakage Current (µA)	Maximum RMS Ripple Current (A) 100 kHz, +105°C	Dimensions LxHxT (mm)
6.3	47	476XMPL6R3MG19	2.1164	25	29.61	1.8	7.3x4.3x1.9
6.3	68	686XMPL6R3MG19	1.4628	15	42.84	2	7.3x4.3x1.9
6.3	100	107XMPL6R3MG19H	0.9947	12	63	2.7	7.3x4.3x1.9
6.3	100	107XMPL6R3MG19	0.9947	15	63	2.7	7.3x4.3x1.9
6.3	120	127XMPL6R3MG19	0.8289	15	75.6	2.7	7.3x4.3x1.9
6.3	120	127XMPL6R3MG19H	0.8289	12	75.6	2.7	7.3x4.3x1.9
6.3	120	127XMPL6R3MG19X	0.8289	9	75.6	2.7	7.3x4.3x1.9
6.3	150	157XMPL6R3MG19	0.6631	15	94.5	3	7.3x4.3x1.9
6.3	150	157XMPL6R3MG19H	0.6631	12	94.5	3	7.3x4.3x1.9
6.3	150	157XMPL6R3MG19X	0.6631	9	94.5	3	7.3x4.3x1.9
6.3	180	187XMPL6R3MG19	0.5526	15	113.4	2.7	7.3x4.3x1.9
6.3	220	227XMPL6R3MG19	0.4521	10	138.6	3	7.3x4.3x1.9
6.3	330	337XMPL6R3YG19	0.3014	10	207.9	3	7.3x4.3x1.9
10	10	106XMPL010MG19	9.9472	45	30	1	7.3x4.3x1.9
10	22	226XMPL010MG19	4.5214	40	66	1.8	7.3x4.3x1.9
10	33	336XMPL010MG19	3.0143	40	99	2	7.3x4.3x1.9
10	47	476XMPL010MG19	2.1164	40	141	3	7.3x4.3x1.9
12	10	106XMPL012MG19	9.9472	55	37.5	1	7.3x4.3x1.9
12	15	156XMPL012MG19	6.6315	45	56.25	1	7.3x4.3x1.9
12	22	226XMPL012MG19	4.5214	30	82.5	1.8	7.3x4.3x1.9
16	6.8	685XMPL016MG19	14.6282	70	32.64	2	7.3x4.3x1.9
16	10	106XMPL016MG19	9.9472	40	48	2	7.3x4.3x1.9
16	15	156XMPL016MG19	6.6315	40	72	3	7.3x4.3x1.9
16	22	226XMPL016MG19	4.5214	40	105.6	3	7.3x4.3x1.9
16	47	476XMPL016MG19	2.1164	40	225.6	3	7.3x4.3x1.9
20	6.8	685XMPL020MG19	14.6282	40	40.8	1.8	7.3x4.3x1.9
20	10	106XMPL020MG19	9.9472	40	60	1.8	7.3x4.3x1.9
20	15	156XMPL020MG19	6.6315	40	90	2	7.3x4.3x1.9
20	22	226XMPL020MG19	4.5214	40	282	2	7.3x4.3x1.9
20	33	336XMPL020MG19	3.0143	40	336	2	7.3x4.3x1.9
20	47	476XMPL020MG19	2.1146	40	132	2.2	7.3x4.3x1.9
20	56	566XMPL020MG19	1.7762	40	198	2.2	7.3x4.3x1.9
25	6.8	685XMPL025MG19	14.6282	40	51	1.8	7.3x4.3x1.9
25	10	106XMPL025MG19	9.9472	40	75	2	7.3x4.3x1.9
25	22	226XMPL025MG19	4.5214	40	165	2	7.3x4.3x1.9
25	33	336XMPL025MG19	3.0143	40	247.5	2.2	7.3x4.3x1.9
25	47	476XMPL025MG19	2.1164	40	352.5	2.2	7.3x4.3x1.9
35	6.8	685XMPL035MG19	14.6282	40	71.4	1.2	7.3x4.3x1.9
35	10	106XMPL035MG19	9.9472	40	105	1.8	7.3x4.3x1.9
35	22	226XMPL035MG19	4.5214	40	231	2	7.3x4.3x1.9
35	33	336XMPL035MG19	3.0143	40	346.5	2	7.3x4.3x1.9