



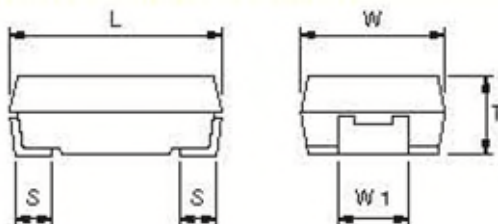
FEATURES

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

APPLICATIONS

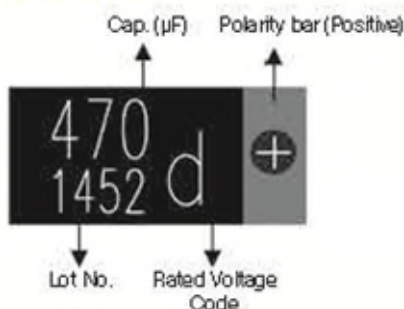
Decoupling – Noise Suppression

Operating Temperature Range		-55°C to +105°C							
Capacitance Tolerance		±20% (M), -35% +10% (Y) 120 Hz, 20°C							
Surge Voltage	WVDC	2	2.5	4	6.3	10	12.5	16	
	SVDC	1.25*WVDC							
Dissipation Factor	WVDC	2	2.5	4	6.3	10	12.5	16	
	Tan δ	.06							
Leakage Current (25°C) MAX		Time	<10 VDC			≥10 VDC			
		2 Minutes	0.1CV			0.3CV			
Load Life		1000 hours at 105°C with rated WVDC applied							
		Capacitance Change			≤10% of initial measured value				
		Dissipation Factor			≤100% of maximum specified value				
		Leakage Current			≤100% of maximum specified value				
Moisture Resistance Test		500 hours at 60°C and 90% relative Humidity with no voltage applied							
		Capacitance Change			≤20% to +70% of initially measured value				
		Dissipation Factor			≤200% of maximum specified value				
		Leakage Current			≤100% of maximum specified value				



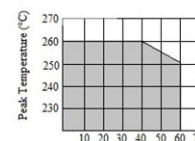
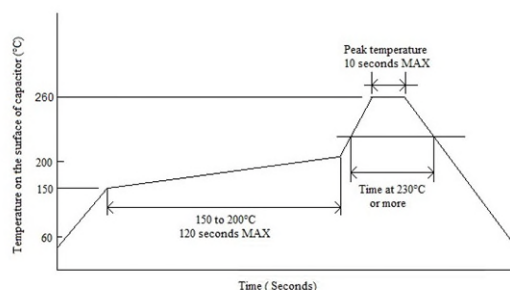
Case size	EIA Code	L±0.2	W±0.2	T±0.2	W1±0.1	S±0.3
G19	7343	7.3	4.3	1.9	2.4	1.3
G28	7343	7.3	4.3	2.8	2.4	1.3

Markings



Example: 470µF/2V

Recommended soldering profile



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	337XMPL002MG28R	0.3014	6	66	3	7.3x4.3x2.8
2	330	337XMPL002MG28X	0.3014	9	66	3	7.3x4.3x2.8
2	330	337XMPL002MG28H	0.3014	12	66	3	7.3x4.3x2.8
2	330	337XMPL002MG28A	0.3014	4.5	66	3	7.3x4.3x2.8
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	397XMPL002MG19X	0.2551	9	78	3	7.3x4.3x1.9
2	390	397XMPL002MG19R	0.2551	6	78	3	7.3x4.3x1.9
2	390	397XMPL002MG19A	0.2551	4.5	78	3	7.3x4.3x1.9
2	470	477XMPL002MG28A	0.2116	4.5	94	3	7.3x4.3x2.8
2	470	477XMPL002MG28X	0.2116	9	94	3	7.3x4.3x2.8
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	470	477XMPL002MG28R	0.2116	6	94	3	7.3x4.3x2.8
2.5	150	157XMPL2R5MG19	0.6631	9	37.5	3	7.3x4.3x1.9
2.5	150	157XMPL2R5MG28	0.6631	9	37.5	3	7.3x4.3x2.8
2.5	180	187XMPL2R5MG19	0.5526	9	45	3	7.3x4.3x1.9
2.5	180	187XMPL2R5MG28	0.5526	9	45	3	7.3x4.3x2.8
2.5	220	227XMPL2R5MG28R	0.4521	7	55	3	7.3x4.3x2.8
2.5	220	227XMPL2R5MG28X	0.4521	9	55	3	7.3x4.3x2.8
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	220	227XMPL2R5MG19X	0.4521	9	55	3	7.3x4.3x1.9
2.5	220	227XMPL2R5MG28H	0.4521	12	55	3	7.3x4.3x2.8
2.5	270	277XMPL2R5MG19H	0.3684	12	67.5	3	7.3x4.3x1.9
2.5	270	277XMPL2R5MG19R	0.3684	7	67.5	3	7.3x4.3x1.9
2.5	270	277XMPL2R5MG28R	0.3684	7	67.5	3	7.3x4.3x2.8
2.5	270	277XMPL2R5MG28X	0.3684	9	67.5	3	7.3x4.3x2.8
2.5	270	277XMPL2R5MG19X	0.3684	9	67.5	3	7.3x4.3x1.9
2.5	270	277XMPL2R5MG28H	0.3684	12	67.5	3	7.3x4.3x2.8
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	330	337XMPL2R5MG19X	0.3014	9	82.5	3	7.3x4.3x1.9
2.5	390	397XMPL2R5MG19H	0.2551	12	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	390	397XMPL2R5MG19X	0.2551	9	97.5	3	7.3x4.3x1.9
2.5	470	477XMPL2R5YG19R	0.2116	6	117.5	3	7.3x4.3x1.9
2.5	470	477XMPL2R5YG28A	0.2116	4.5	117.5	3	7.3x4.3x2.8
2.5	470	477XMPL2R5YG19X	0.2116	9	117.5	3	7.3x4.3x1.9
2.5	470	477XMPL2R5YG28H	0.2116	12	117.5	3	7.3x4.3x2.8
2.5	470	477XMPL2R5YG28R	0.2116	6	117.5	3	7.3x4.3x2.8
2.5	470	477XMPL2R5YG28X	0.2116	9	117.5	3	7.3x4.3x2.8
2.5	470	477XMPL2R5YG19A	0.2116	4.5	117.5	3	7.3x4.3x1.9
2.5	470	477XMPL2R5YG19H	0.2116	12	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

Americas / EU
Phone: 1-508-996-8561
Email: cdena@cde.com



Asia
Phone: 852-2793-0931
Email: cdeasia@cde.com

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)
4	100	107XMPL004MG19	0.9947	9	40	3	7.3x4.3x1.9
4	150	157XMPL004MG19	0.6631	12	60	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	180	187XMPL004MG28R	0.5526	7	72	3	7.3x4.3x2.8
4	180	187XMPL004MG28X	0.5526	9	72	3	7.3x4.3x2.8
4	180	187XMPL004MG19H	0.5526	12	72	3	7.3x4.3x1.9
4	180	187XMPL004MG19R	0.5526	7	72	3	7.3x4.3x1.9
4	180	187XMPL004MG19X	0.5526	9	72	3	7.3x4.3x1.9
4	180	187XMPL004MG28H	0.5526	12	72	3	7.3x4.3x2.8
4	220	227XMPL004MG28R	0.4521	7	88	3	7.3x4.3x2.8
4	220	227XMPL004MG28X	0.4521	9	88	3	7.3x4.3x2.8
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	220	227XMPL004MG28H	0.4521	12	88	3	7.3x4.3x2.8
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	270	277XMPL004MG19H	0.3684	12	108	2.7	7.3x4.3x1.9
4	330	337XMPL004YG19X	0.3014	9	132	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
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
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	107XMPL6R3MG19	0.9947	15	63	2.7	7.3x4.3x1.9
6.3	100	107XMPL6R3MG19H	0.9947	12	63	2.7	7.3x4.3x1.9
6.3	120	127XMPL6R3MG19X	0.8289	9	75.6	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	150	157XMPL6R3MG28X	0.6631	9	94.5	3	7.3x4.3x2.8
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	150	157XMPL6R3MG28	0.6631	15	94.5	3	7.3x4.3x2.8
6.3	150	157XMPL6R3MG28H	0.6631	12	94.5	3	7.3x4.3x2.8
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	220	227XMPL6R3MG28	0.4521	15	138.6	3	7.3x4.3x2.8
6.3	330	337XMPL6R3YG19	0.3014	10	207.9	3	7.3x4.3x1.9
6.3	330	337XMPL6R3YG28	0.3014	10	207.9	3	7.3x4.3x2.8
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
10	68	686XMPL010MG28	1.4628	40	204	3	7.3x4.3x2.8
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
12	33	336XMPL012MG28	3.0143	25	123.75	2	7.3x4.3x2.8
12	47	476XMPL012MG28	2.1164	20	176.25	2	7.3x4.3x2.8
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	226XMPL016MG28	4.5214	40	105.6	3	7.3x4.3x2.8
16	22	226XMPL016MG19	4.5214	40	105.6	3	7.3x4.3x1.9

Americas / EU
Phone: 1-508-996-8561
Email: cdena@cde.com



Asia
Phone: 852-2793-0931
Email: cdeasia@cde.com

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