

TEST & MEASUREMENT

INTERCONNECT

ENCLOSURES

POWER

AUTOMATION & CONTROL

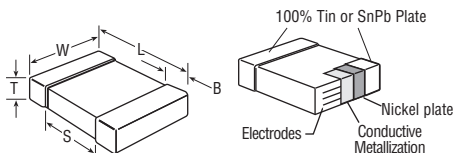
OPTOELECTRONICS

CAPACITORS

ASSEMBLY

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High Temperature Ceramic Chip Capacitors



Dimensions — Inches (mm)

Size Code	L Length	W Width	B Bandwidth	S Min. Sep.	EACH	
					1-49	50-99
0603	1.6 ±0.15 (0.063 ±0.006)	0.8 ±0.15 (0.032 ±0.006)	0.35 ±0.15 (0.14 ±0.006)	0.70 (0.028)	—	—
0805	2.0 ±0.20 (0.079 ±0.008)	1.25 ±0.2 (0.049 ±0.008)	0.5 ±0.25 (0.02 ±0.010)	0.75 (0.030)	—	—
1206	3.2 ±0.20 (0.126 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	0.5 ±0.25 (0.02 ±0.010)	—	—	—
1210	3.2 ±0.20 (0.126 ±0.008)	2.5 ±0.2 (0.098 ±0.008)	0.5 ±0.25 (0.02 ±0.010)	—	—	—
1812	4.5 ±0.30 (0.177 ±0.012)	3.2 ±0.3 (0.126 ±0.012)	0.6 ±0.35 (0.024 ±0.014)	—	—	—

COG (NPO)

Features:

- ▶ Max. Operating Temperature +200°C
- ▶ No Piezoelectric Properties
- ▶ Extremely Low ESR and ESL
- ▶ High Thermal Stability
- ▶ High Ripple Current Capability
- ▶ Preferred Capacitance Solution at Line Frequencies and into the MHz Range
- ▶ No Capacitance Change with Respect to Applied Rated DC Voltage
- ▶ No Capacitance Change with Respect to Temperature from -55 to +200°C
- ▶ No Capacitance Decay with Time
- ▶ Non-Polar Device

Stock No.	Mir.'s Type	Cap. (pF)	Voltage	Tol. (%)	EACH	
					1-49	50-99
70096603	C0805H333J4GACT250	0.033	16	5	21.03	18.76
70096600	C0603H103J3GACT250	0.01	25	5	5.22	4.65
70096608	C1206H104J3GACT250	0.1	25	5	16.33	14.56
70096602	C0805H103J5GACT250	0.01	50	5	17.80	15.87
70096604	C1206H103J5GACT250	0.01	50	5	8.15	7.27
70096607	C1206H473J5GACT250	0.047	50	5	10.89	9.71
70096610	C1210H104J5GACT250	0.1	50	5	24.28	21.65
70096611	C1812H104J5GACT250	0.1	50	5	9.57	8.54
70096613	C1812H224J5GACT250	0.22	50	5	11.50	10.26
70096601	C0805H103J1GACT250	0.01	100	5	20.49	18.27
70096605	C1206H103J1GACT250	0.01	100	5	9.41	8.39
70096606	C1206H473J1GACT250	0.047	100	5	12.56	11.21
70096609	C1210H104J1GACT250	0.1	100	5	28.05	25.02
70096612	C1812H104J1GACT250	0.1	100	5	12.22	10.90

X8R

Features:

- ▶ Max. Operating Temperature +150°C
- ▶ Ultra Stable
- ▶ Capacitance Shift Limited to ±15% from -55°C to +150°C
- ▶ No Capacitance Loss and Is Suitable Replacement for Higher Capacitance and Larger Footprint Devices That Fail to Offer Capacitance Stability

70096617	C0603C103J3HACTU	0.01	25	5	.25	.15
70096618	C0603C103K3HACTU	0.01	25	10	.22	.14
70096629	C0805C333J3HACTU	0.033	25	5	.45	.25

X8R (Continued)

Stock No.	Mir.'s Type	Cap. (pF)	Voltage	Tol. (%)	EACH	
					1-49	50-99
70096633	C1206C104J3HACTU	0.1	25	5	1.95	1.35
70096634	C1206C104K3HACTU	0.1	25	10	.40	.30
70096614	C0402C102K5HACTU	0.001	50	10	.45	.30
70096616	C0603C102K5HACTU	0.001	50	10	.22	.14
70096619	C0603C222K5HACTU	0.0022	50	10	.25	.15
70096622	C0603C472K5HACTU	0.0047	50	10	.22	.14
70096624	C0805C103K5HACTU	0.01	50	10	.30	.25
70096632	C1206C103K5HACTU	0.01	50	10	.30	.25
70096627	C0805C223J5HACTU	0.022	50	5	4.45	2.25
70096643	C1812C224J5HACTU	0.22	50	5	2.47	1.95
70096621	C0603C472J1HACTU	0.0047	100	5	.25	.15
70096626	C0805C153J1HACTU	0.015	100	5	.41	.25
70096635	C1206C473J1HACTU	0.047	100	5	4.30	3.00
70096639	C1210C104J1HACTU	0.1	100	5	4.25	3.64

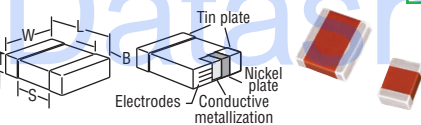
X8L

Features:

- ▶ Max. Operating Temperature +150°C
- ▶ Capacitance Shift Limited to ±15% from -55°C to +125°C, and +15%, -40% from +125°C to +150°C

70096615	C0402C473J8NACTU	0.047	10	5	.25	.16
70096620	C0603C224J8NACTU	0.22	10	10	.52	.42
70096625	C0805C105J8NACTU	1	10	5	.40	.30
70096638	C1206C475J8NACTU	4.7	10	5	.99	.80
70096641	C1210C106J8NACTU	10	10	5	1.00	.90
70096630	C0805C334K3NACTU	0.33	25	10	.42	.28
70096637	C1206C474K3NACTU	0.47	25	10	.75	.65
70096631	C0805C684J3NACTU	0.68	25	5	.32	.25
70096623	C0603C473K5NACTU	0.047	50	10	.45	.25
70096628	C0805C224J5NACTU	0.22	50	5	.40	.25
70096636	C1206C474J5NACTU	0.47	50	5	.65	.55
70096640	C1210C105J5NACTU	1	50	5	1.38	1.20

Ceramic Chip Capacitors



Temperature Characteristic: Designated by capacitance change over temperature range — **COG (NPO):** ±30 ppm/°C; -55°C to +125°C. **X7R:** ±15%; -55°C to +125°C. **X5R:** ±15%; -55°C to +85°C. **Z5U:** ±22%, -56%, +10°C to +85°C. **Y5V:** ±22%, -82%, 30°C to +85°C.

▶ Standard End Metallization Tin-Plate Over Nickel Barrier

Dimensions — Inches (mm)

Size Code	L Length	W Width	B Bandwidth	S Min. Sep.	EACH	
					1-49	50-99
0402	1.0 ±0.05 (0.04 ±0.002)	0.5 ±0.05 (0.02 ±0.002)	0.20-0.40 (0.008-0.016)	0.30 (0.012)	—	—
0603	1.6 ±0.15 (0.063 ±0.006)	0.8 ±0.15 (0.032 ±0.006)	0.35 ±0.15 (0.14 ±0.006)	0.70 (0.028)	—	—
0805	2.0 ±0.20 (0.079 ±0.008)	1.25 ±0.2 (0.049 ±0.008)	0.5 ±0.25 (0.02 ±0.010)	0.75 (0.030)	—	—
1206	3.2 ±0.20 (0.126 ±0.008)	1.6 ±0.2 (0.063 ±0.008)	0.5 ±0.25 (0.02 ±0.010)	—	—	—
1210	3.2 ±0.20 (0.126 ±0.008)	2.5 ±0.2 (0.098 ±0.008)	0.5 ±0.25 (0.02 ±0.010)	—	—	—
1812	4.5 ±0.30 (0.177 ±0.012)	3.2 ±0.3 (0.126 ±0.012)	0.6 ±0.35 (0.024 ±0.014)	—	—	—

COG (NPO)

Stock No.	Mir.'s Type	Cap. (pF)	Voltage	Tol. (%)	EACH	
					10-49	50-99
70095385	C0402C101J3GACTU	100	25	5	.06	.02
70095647	C1206C103J3GACTU	10000	25	5	.65	.50
70095435	C0402C508C5GACTU	0.5	50	0.25pF	.37	.25
70095522	C0603C508C5GACTU	0.5	50	0.25pF	.45	.40
70095569	C0805C109C5GACTU	1	50	0.25pF	.35	.30
70096817	C0402C129C5GACTU	1.2	50	0.25pF	.06	.05
70095408	C0402C159C5GACTU	1.5	50	0.25pF	.06	.05
70095476	C0603C159C5GACTU	1.5	50	0.25pF	.10	.09
70096809	C0402C209C5GACTU	2.0	50	0.25pF	.36	.28
70096833	C0603C209C5GACTU	2.0	50	0.25pF	.18	.14
70095419	C0402C279C5GACTU	2.7	50	0.25pF	.06	.05
70095426	C0402C339C5GACTU	3.3	50	0.25pF	.06	.05

COG (NPO) (Continued)

Stock No.	Mir.'s Type	Cap. (pF)	Voltage	Tol. (%)	EACH	
					1-49	50-99
70096811	C0402C479C5GACTU	4.7	50	0.25pF	.06	.05
70096821	C0603C569C5GACTU	5.6	50	0.25pF	.06	.05
70095384	C0402C100J5GACTU	10	50	5	.06	.02
70095448	C0603C100J5GACTU	10	50	5	.06	.02
70095533	C0805C100J5GACTU	10	50	5	.10	.08
70095638	C1206C100J5GACTU	10	50	5	.20	.10
70095401	C0402C120J5GACTU	12	50	5	.11	.06
70095470	C0603C120J5GACTU	12	50	5	.06	.05
70095570	C0805C120J5GACTU	12	50	5	.06	.05
70095666	C1206C120J5GACTU	12	50	5	.20	.10
70095405	C0402C150J5GACTU	15	50	5	.06	.02
70095473	C0603C150J5GACTU	15	50	5	.06	.05
70095575	C0805C150J5GACTU	15	50	5	.07	.07
70095668	C1206C150J5GACTU	15	50	5	.20	.10
70096729	C0402C180J5GACTU	18	50	5	.06	.02
70095477	C0603C180J5GACTU	18	50	5	.06	.05
70095583	C0805C180J5GACTU	18	50	5	.14	.10
70095673	C1206C180J5GACTU	18	50	5	.20	.10
70095674	C1206C200J5GACTU	20	50	5	.40	.35
70095409	C0402C220J5GACTU	22	50	5	.06	.02
70095479	C0603C220J5GACTU	22	50	5	.06	.05
70095588	C0805C220J5GACTU	22	50	5	.07	.07
70095675	C1206C220J5GACTU	22	50	5	.20	.10
70095417	C0402C270J5GACTU	27	50	5	.06	.02
70095494	C0603C270J5GACTU	27	50	5	.06	.05
70095600	C0805C270J5GACTU	27	50	5	.07	.07
70095686	C1206C270J5GACTU	27	50	5	.20	.10
70095420	C0402C330J5GACTU	33	50	5	.06	.02
70095499	C0603C330J5GACTU	33	50	5	.06	.02
70095605	C0805C330J5GACTU	33	50	5	.10	.08
70095693	C1206C330J5GACTU	33	50	5	.20	.10
70095427	C0402C390J5GACTU	39	50	5	.06	.02
70095612	C0603C390J5GACTU	39	50	5	.10	.08
70095429	C0402C470J5GACTU	47	50	5	.06	.02
70095512	C0603C470J5GACTU	47	50	5	.06	.05
70095615	C0805C470J5GACTU	47	50	5	.10	.08
70095705	C1206C470J5GACTU	47	50	5	.20	.10
70095436	C0402C560J5GACTU	56	50	5	.06	.02
70095523	C0603C560J5GACTU	56	50	5	.06	.02
70095625	C0805C560J5GACTU	56	50	5	.14	.10
70095720	C1206C560J5GACTU	56	50	5	.35	.25
70095438	C0402C680J5GACTU	68	50	5	.11	.06</