

Conformally Coated, Radial Multilayer Ceramic Capacitors

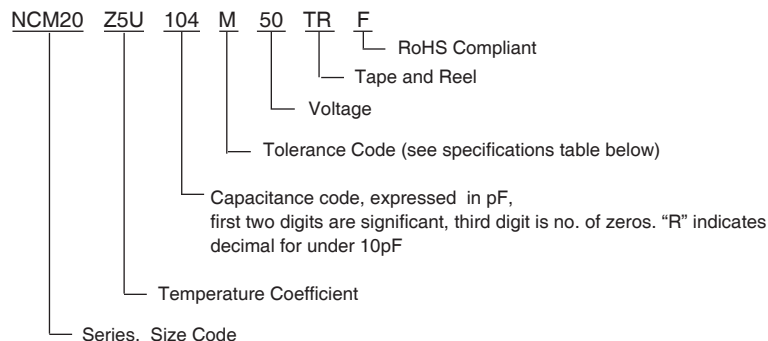
FEATURES

- FLAME RETARDANT EPOXY COATING
- TEMPERATURE COEFFICIENTS NPO, X7R, Z5U
- AVAILABLE ON TAPE AND REEL



PART NUMBER SYSTEM

*See Part Number System for Details



SPECIFICATIONS

Characteristics	NPO	X7R	Z5U
Capacitance Range*	1pF ~ 0.1µF	470pF ~ 4.7µF	1000pF ~ 4.7µF
Capacitance Tolerance (Code)	±1%(F), ±2%(G), ±5%(J)	±5%(J), ±10%(K), ±20%(M)	±20%(M), +80%/-20%(Z)
Operating Temperature Range	-55°C to +125°C	-55°C to +125°C	+10°C to +85°C
Temperature Characterisitcs	0±30ppm/°C	±15% (0 Vdc)	+22%/-56%
Voltage Rating	50, 100 & 200 Vdc	50 & 100 Vdc	50 & 100 Vdc
Dissipation Factor	0.15% Max. (+25°C and +125°C) for values greater than 30 pF. For values of 30pF and below: Q = 20 x C +400 1.0Vrms 1MHz for values ≤ 1000pF 1KHz for values > 1000pF	2.5% Max. at 1KHz, 1Vrms Max.	4.0% Max. at 1KHz, 5Vrms Max.
Insulation Resistance 25°C (Mil- STD-202, Method 302)	100K Megohms or 1000 Megohm -µF Min., Whichever is Less	100K Megohms or 1000 Megohm -µF Min., Whichever is Less	10K Megohms or 100 Megohm -µF Min., Whichever is Less
Dielectric Strength	250% of Rated Voltage	250% of Rated Voltage	200% of Rated Voltage
Life Test (1000 hours)	200% of Rated Voltage at +125°C	200% of Rated Voltage at +125°C	150% of Rated Voltage at +85°C



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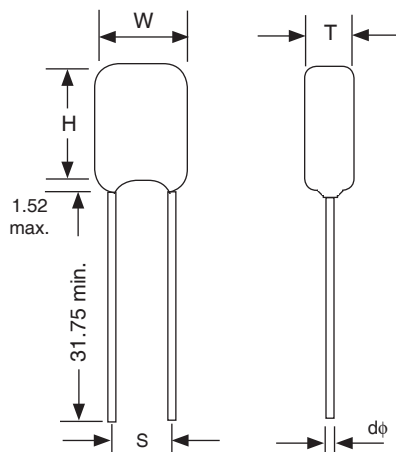
SIZE CODE AND AVAILABLE CAPACITANCE RANGE

Size Code	WVDC	NPO	X7R	Z5U
NCM15	50	330pF~1000pF	470pF~0.022μF	0.01μF~0.082μF
	100/200	1pF~680pF	470pF~4700pF	1000pF~0.01μF
NCM20	50	820pF~8200pF	5600pF~0.15μF	0.1μF~0.47μF
	100/200	330pF~6800pF	0.01μF~0.1μF	0.15μF~0.22μF
NCM21	50	10pF~8200pF	1000pF~0.22μF	0.015μF~0.22μF
	100/200	10pF~6800pF	1000pF~0.1μF	0.01μF~0.47μF
NCM30	50	0.01μF~0.027μF	0.33μF~1.0μF	0.68μF~3.3μF
	100	8200pF~0.022μF	0.15μF~0.47μF	0.33μF~1.0μF
NCM40	50	0.039μF~0.068μF	2.2μF~2.7μF	-
	100	0.033μF~0.047μF	0.39μF~1.0μF	1.5μF~2.2μF
NCM50	50	0.01μF~0.1μF	1.0μF~4.7μF	1.0μF~4.7μF
	100	0.01μF~0.068μF	0.33μF~2.2μF	1.0μF~2.2μF

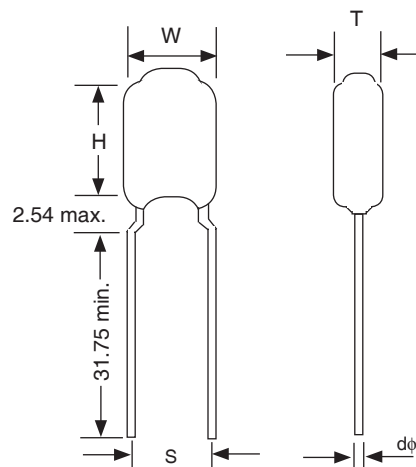
DIMENSIONS (mm)

Size Code	W max. Width	H max. Height	T max. Thickness	S ±0.76 Lead Spacing	dφ Lead Diameter
NCM15	3.81	3.81	2.54	2.54	0.5
NCM20	5.08	5.08	3.18	2.54	0.5
NCM21	5.08	5.08	3.18	5.08	0.5
NCM30	7.62	7.62	3.81	5.08	0.5
NCM40	10.15	10.15	3.81	5.08	0.5
NCM50	12.70	12.70	5.08	10.16	0.63

NCM 15, 20, 30, 40, 50



NCM 21



PACKAGING

BULK

NCM 15, 20, 21	1000 pieces per bag
NCM 30, 40, 50	500 pieces per bag

TAPE AND REEL

NCM 15	3500 pieces per reel
NCM 20 & 21	3000 pieces per reel
NCM 30	2000 pieces per reel
NCM 40	2000 pieces per reel

*TAPE AND REEL SPECIFICATIONS SUPPLIED ON REQUEST.

