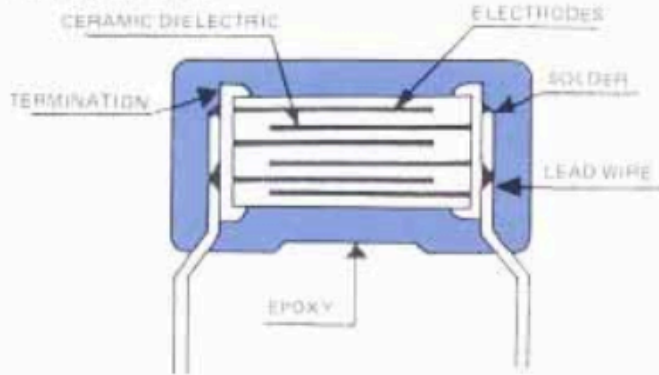




MULTILAYER CERAMIC CAPACITORS EPOXY COATED RADIAL TYPE

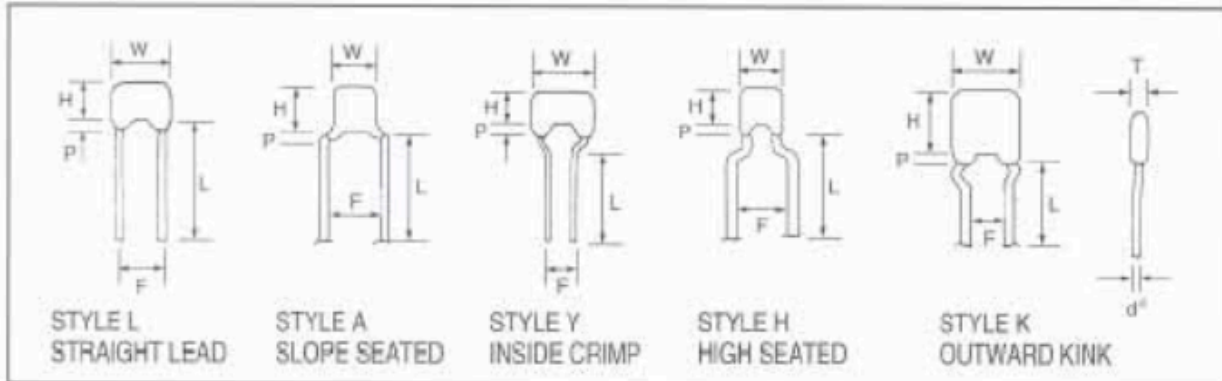
CONSTRUCTION



APPLICATION

- NPO: Temperature compensation type; have little or no change in capacitance with variation in temperature. Hence, they are used in radio-frequency oscillators, precision timing circuits, ultrastable amplifiers, etc.
- X7R: Temperature stable type for by-pass and decoupling in radio and television receivers, computers servo systems, audio tone, and coupling, etc. where moderate capacitance variations are permissible and dissipation factor is not critical.
- Z5U/Y5V: General type for by-pass and filtering applications.

1. LEAD SHAPE:



2. LEAD SPACE (F)

CODE	LEAD SPACE (mm/inch)	
2	2.54 ± 0.08	0.1 ± 0.032
5	5.08 ± 0.08	0.2 ± 0.032

3. LEAD LENGTH

CODE	PACKING	LEAD LENGTH
R	Tape/Reel	—
B	Tape/Box	—
K	Bulk	LEAD LENGTH UPON REQUEST 2.5-25.4mm
L		25.4mm min

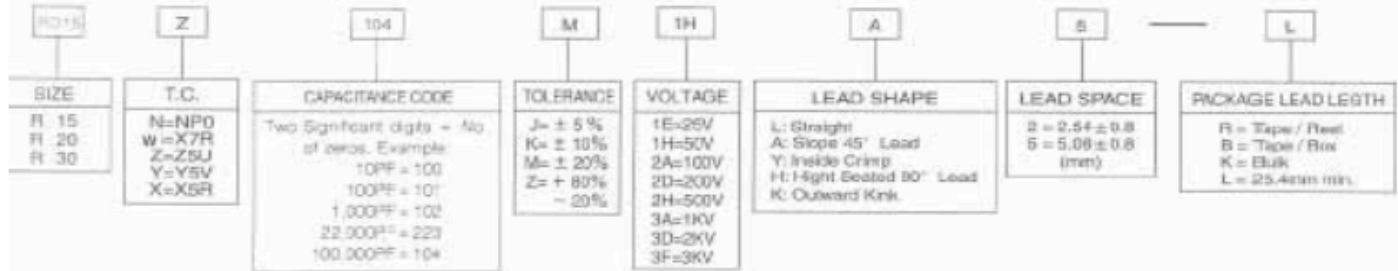
SIZE CODE and DIMENSIONS (millimeter)

SIZE CODE	H	W	T	D	dφ	LEAD LENGTH	LEAD SPACING(F)	LEAD SHAPE
R 15	3.81	3.81	2.54	2.00	0.53	2.5mm 25.4mm	2.54	L
R 20	5.08	5.08	3.18				5.08	A.H.K.
							2.54	L.K.Y.
R 30	7.62	7.62	3.81				6.08	H.K.
							5.08	H



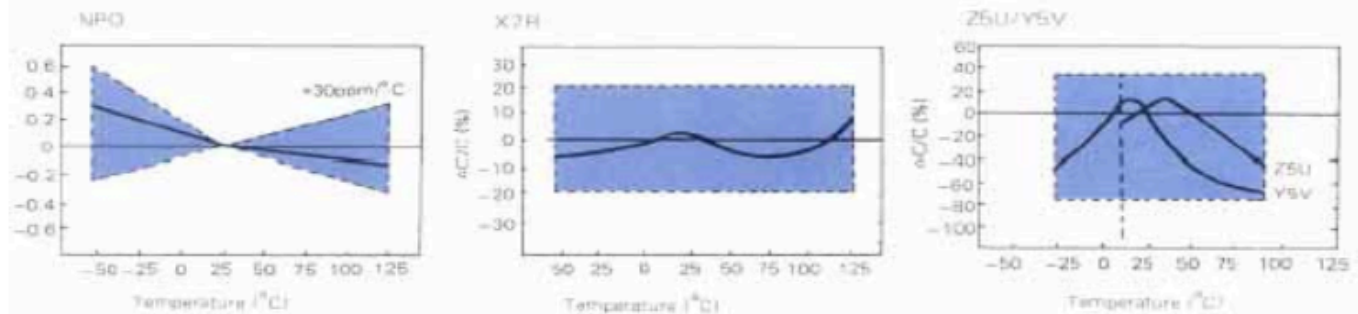
MULTILAYER CERAMIC CAPACITORS EPOXY COATED RADIAL TYPE

Part Code Designation



TYPICAL PERFORMANCE CHARACTERISTICS

1. TEMPERATURE CHARACTERISTICS



2. SPECIFICATIONS

Temperature coefficient

NPO	0 ± 30ppm/°C, -55°C to +125°C
X7R	± 15%, -55°C to +125°C
Z5U	+ 22%, -56%, + 10% to + 85°C
Y5V	+ 22%, -82%, -30°C to + 85°C

Capacitance Test 25°C

NPO	1 VRMS max at 1 KHz. (1 MHz for 100pF or less)
X7R	1 VRMS max at 1 KHz
Z5U	1 VRMS max at 1 KHz
Y5V	1 VRMS max at 1 KHz

Dissipation Factor 25°C

NPO	0.15% max at 1 KHz, 1 VRMS max. (1 MHz for 100pF or less)
X7R	2.5% max at 1 KHz, 1 VRMS max.
Z5U	5% max at 1 KHz, 1 VRMS max
Y5V	5% max at 1 KHz, 1 VRMS max

Dielectric Strength 25°C (Flash Test)

NPO and X7R	300% rated voltage for 5 seconds with 50 mA, max. charging current.
Z5U and Y5V	250% rated voltage for 5 seconds with 50 mA, max. charging current.

Life Test (1000hrs)

NPO	± 3% at 200% rated voltage, 125°C
X7R	± 12.5% at 200% rated voltage, 125°C
Z5U	± 30% at 200% rated voltage, 85°C
Y5V	± 30% at 200% rated voltage, 85°C

Insulation Resistance 25°C

NPO and X7R	100GΩ or 1000MΩ-MFD whichever is less.
Z5U and Y5V	10GΩ or 100MΩ-MFD whichever is less.