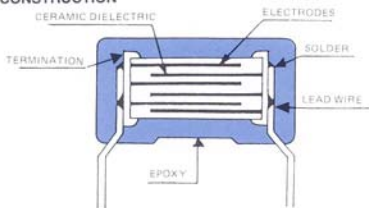


MULTILAYER CERAMIC CAPACITORS EPOXY COATED RADIAL TYPE

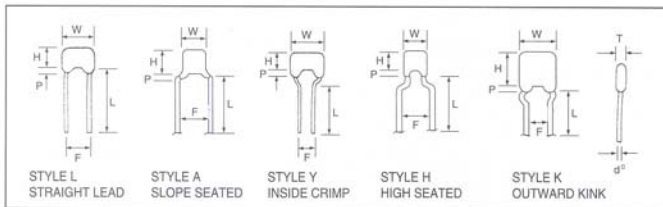
CONSTRUCTION



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 ± 0.8
5	5.08 ± 0.8	0.2 ± 0.032

3. LEAD LENGTH

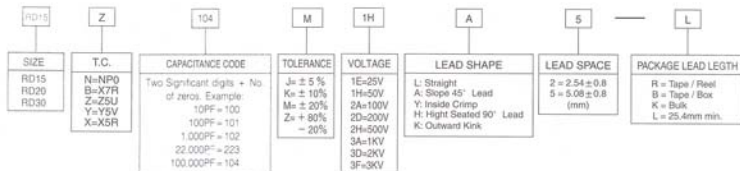
CODE	PACKING	LEAD LENGTH
R	Tape/Reel	-
B	Tape/Box	-
K	Bulk	LEAD LENGTH UPON REQUEST 2.5-25.4mm
L		25.4mm min

SIZE CODE and DIMENSIONS (millimeter)

SIZE CODE	H	W	T	D	d^0	LEAD LENGTH	LEAD SPACING(F)	LEAD SHAPE
RD15	3.81	3.81	2.54	2.00	0.53	2.5mm ? 25.4mm	2.54	L
							5.08	A.H.K.
RD20	5.08	5.08	3.18				2.54	L.K.Y.
							5.08	H.K.
RD30	7.62	7.62	3.81			5.08	H	

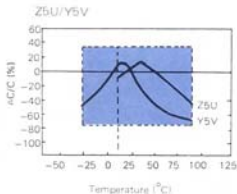
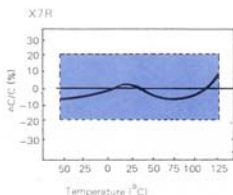
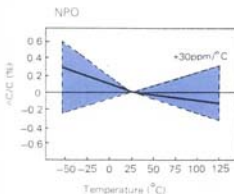
MULTILAYER CERAMIC CAPACITORS EPOXY COATED RADIAL TYPE

Part Code Designation



TYPICAL PERFORMANCE CHARACTERISTICS

1. TEMPERATURE CHARACTERISTICS



2. SPECIFICATIONS

Temperature coefficient

NPO: $0 \pm 30 \text{ppm}/^\circ\text{C}$, -55°C to $+125^\circ\text{C}$
 X7R: $\pm 15\%$, -55°C to $+125^\circ\text{C}$
 Z5U: $+22\%$, -56% , $+10\%$ to $+85^\circ\text{C}$
 Y5V: $+22\%$, -82% , -30°C to $+85^\circ\text{C}$

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: $\leq \pm 3\%$ at 200% rated voltage, 125°C
 X7R: $\leq \pm 12.5\%$ at 200% rated voltage, 125°C
 Z5U: $\leq \pm 30\%$ at 200% rated voltage, 85°C
 Y5V: $\leq \pm 30\%$ 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.