

# CERAMIC CHIP CAPACITORS X7R (BX) DIELECTRIC

## APPLICATION

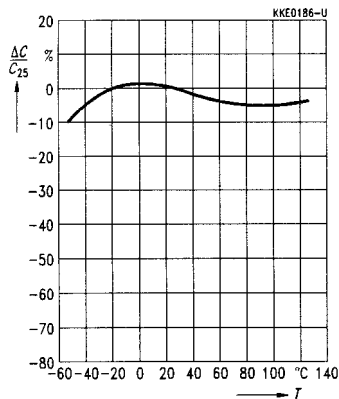
X7R dielectric properties; suited for by –pass and coupling purposes, filtering, frequency discrimination, DC blockage, and as voltage transient suppression elements.

## General Specification

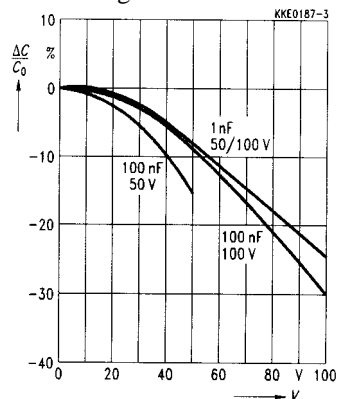
- Operating temperature range  $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- Capacitance Range: 100pF ~ 1.0uF(1.0  $\pm$ 0.2 Vrms, 1kHz)
- Capacitance Tolerance: Preferred  $\pm 10\%$ ,  $\pm 20\%$   
others available:  $\pm 5\%$
- Voltage Ratings, 25VDC, 50VDC, 100VDC
- Dissipation Factor (1 KHz, 1.0Vrms, 25°C) 2.5% Max(100V, 50V, 25V), 3.5% Max(16V, 10V)
- Insulation resistance (rated voltage applied at 25°C) 100,000 M $\Omega$  or 1,000  $\Omega$ -F min.
- Dielectric strength  $>2.5\text{X WV. DC}$ . With rated D.C. voltage for 1 to 5 sec. Charge/Discharge current shall be within 50mA

### Characteristics

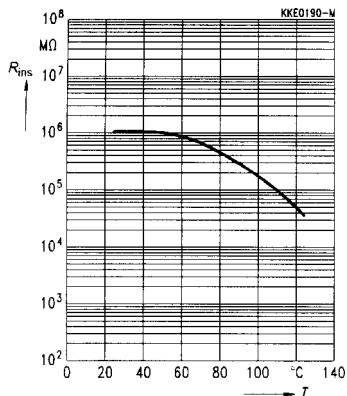
Capacitance change  $\Delta C/C_{25}$  versus temperature T



Capacitance change  $\Delta C/C_0$  versus superimposed dc voltage V



Insulation resistance  $R_{ins}$  versus Temperature T



Capacitance change  $\Delta C/C_1$  versus time t

