(Chip array radial axial)
Capacitor selection

DIELECTRIC TYPE

The choice of dielectric is largely determined by the temperature stability required:

NPO

Ultra stable Class I dielectric, with predictable change of electrical properties on temperature, voltage, frequency and time. Used in circuits requiring stable performance.

X7R

Stable Class II dielectric, with predictable change of properties with temperature, voltage, frequency and time. Used as blocking, coupling, by-passing and frequency discriminating elements. This dielectric is ferroelectric and offers higher capacitance ranges than class I.

Y5V

General purpose Class II dielectric with highest dielectric constant and greater variation of properties with (Z5U) temperature and test conditions. Very high capacitance per unit volume and suited for bypass and coupling application as well as filtering, transient suppression blocking, and charge storage application.

CAPACITANCE VALUE & TOLERANCE

Determined by circuit requirements, NOTE that chip prices decrease with lower capacitance value and looser tolerances.

VOLTAGE

Determined by circuit requirements. Units are designed to exceed the withstanding voltage specification, i.e., the user need not incorporate an additional safety margin.

CAPACITOR TERMINATION

Termination choice is largely determined by the chip attachment method. Nickel barrier is recommended for units exposed to repeated solder cycles, to preclude leaching of the termination. Silver is used on units to be lead attached, as the more ductile silver minimizes thermal cycling hazards.

PACKAGING

Units are available in bulk, some sizes on tape & reel. Specify if reeled.

NONSTANDARD TESTING

CHIP CAP will test to specific customer requirements; consult factory.