FAITHFUL LINK

Cap Array

0612/ 0508 Cap Array series

Features

» High density mounting due to mounting space saving

» Mounting cost saving

» Increased throughput

Applications

» For use as a bypass for digital and analog signal line noise

» Computer motherboards and peripherals

» The other common electronic circuits

Part Number

Y	4C	3	X	103	K	500
Series	**Size**	**Termination pitch**	**Dielectric**	**Capacitance**	**Tolerance**	**Rated voltage**
Y= Capacitor array	4C= 4xCap	3= 0.03" patch 2= 0.02" patch	N=NPO (COG) X=X7R Y=Y5V	Two significant Digits followed by no. of zeros and P is in place of decimal point Eg.:	J=±5% K=±10% M=±20% Z=-20%+80%	Two significant Digits followed by no. of zeros and V is in place of decimal point 100 = 10 VDC
	Y4C3:	4x0603(0612)		103= 10x 10^3		160 = 16 VDC
	Y4C2:	4x0402(0508)		=10,000pF		250 = 25 VDC
				=10nF		500 = 50 VDC

External Dimensions

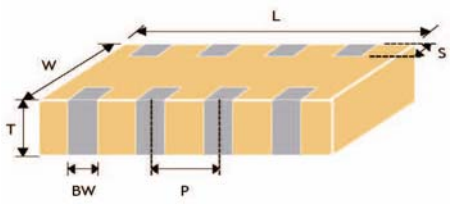

Fig. 1 The outline of MLCC

Size Inch	L (mm)	W (mm)	T (mm)/Symbol		S (mm)	BW (mm)	P (mm)
4x0402 0508(1220)	2.00±0.15	1.25±0.15	0.85±0.10	T	0.20±0.10	0.25±0.10	0.50±0.10
4x0603 0612(1632)	3.20±0.15	1.60±0.15	0.80±0.10	B	0.30±0.20	0.40±0.15	0.80±0.15

Reflow soldering process only

Tel: 886-2-8221-2898 E-MAIL: faithful@faithfullink.com Website: www.faithfullink.com

◆ General Electrical Data

Dielectric	NPO		X7R		Y5V
Size	4x0402	4x0603	4x0402	4x0603	4x0603
Capacitance range*	10pF to 270pF	10pF to 470pF	1000pF to 100nF	180pF to 100nF	10nF to 100nF
Capacitance tolerance	J (±5%),K (±10%)		K (±10%), M (±20%)		Z (-20/+80%)
Rated voltage (WVDC)	25, 50V, 100V		10V, 16V, 25V, 50V	16V, 25V, 50V	16V, 50V
Tan δ	Cap<30pF : Q≥400+20C Cap≥30pF : Q≥1000		U_R=50V, ≤2.5% U_R=25V & 16V, ≤3.5% U_R=10V, ≤5.0%		U_R=50V, ≤5% U_R=16V, ≤7%
Insulation resistance at U_R**	≥10GΩ		≥10GΩ or R x C≥500Ω x F whichever is less		
Operating temperature	-55 to +125°C				-25 to +85°C
Capacitance characteristic	±30ppm		±15%		+30/-80%
Termination	Ni/Sn (lead-free termination)				

* Measured at 30~70% related humidity.
NP0: Apply 1.0±0.2Vrms, 1.0MHz±10% at the conditions of 25°C ambient temperature.
X7R: Apply 1.0±0.2Vrms, 1.0kHz±10%, at the conditions of 25°C ambient temperature.
Y5V: Apply 1.0±0.2Vrms, 1.0kHz±10%, at the conditions of 20°C ambient temperature.
** Preconditioning for Class II MLCC: Perform a heat treatment at 150±10°C for 1 hour, and then leave in ambient condition for 24±2 hours before measurement.

◆ Capacitance Range

Size		4 x 0402							4 x 0603							
Dielectric		NPO			X7R				NPO			X7R			Y5V	
Rated Voltage		25	50	100	10	16	25	50	25	50	100	16	25	50	16	50
Capacitance	10pF(100)															
	15pF(150)															
	22pF(220)															
	33pF(330)															
	47pF(470)															
	68pF(680)															
	100pF(101)															
	150pF(151)															
	180pF(181)															
	220pF(221)															
	270pF(271)															
	330pF(331)															
	470pF(471)															
	6,80pF(681)															
	1,000pF(102)															
	1,500pF(152)															
	2,200pF(222)															
	3,300pF(332)															
	4,700pF(472)															
	6,800pF(682)															
	0.010μF(103)															
	0.015μF(153)															
	0.022μF(223)															
	0.033μF(333)															
	0.047μF(473)															
	0.068μF(683)															
	0.10μF(104)															

Tel: 886-2-8221-2898 E-MAIL: faithful@faithfullink.com Website: www.faithfullink.com