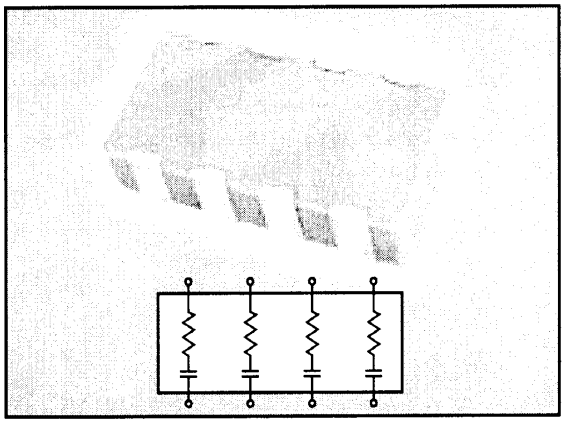
IZI Array

0612 Four Element Series Resistor-Capacitor

GENERAL DESCRIPTION

With the equivalent of 8 components in an 0612 package the IZI Array contains four isolated IZI Chips, a series resistor-capacitor. This makes them ideally suited for applications requiring termination of several lines. The IZI Array enables board designs to: (1) maximize signal integrity by eliminating reflections, (2) reduce DC power consumption by blocking DC current, (3) save PCB real estate and (4) reduce component placement costs.



FEATURES

- **Low Profile**
- **Surface Mountable**
- **Volumetrically Efficient**
- **Several Standard Designs**
- **Custom Designs Available**

APPLICATIONS

- **Line Termination**
- **Timing Circuits**
- **Impedance Matching**

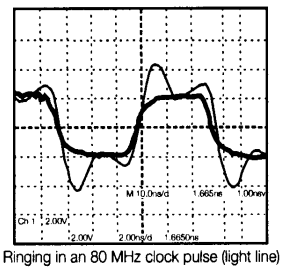
HOW TO ORDER

Z	3	A	4	3	Y	101	M	470	K	A	T	2	A
IZI Chip	**Size** 3 = 0612	**A=Array**	**Number of Elements**	**Voltage Code** 3 = 25V	**Dielectric** Y = 0±500 ppm/°C	**Capacitor Code**	**Capacitor Tolerance Code** M = ±20%	**Resistor Code**	**Resistor Tolerance Code** K = ±10%	**Failure Rate** A = Not Applicable	**Termination Code** T = Plated Ni and Solder	**Packaging Code** 2 = 7" Reel Paper Tape	**Special Code** A = Standard Product

STANDARD PART VALUES

		Capacitance						
		10pF	15pF	22pF	33pF	47pF	68pF	100pF
Resistance	10 Ω							
	15 Ω							
	22 Ω							
	33 Ω							
	47 Ω					**Stock**		**Stock**
	51 Ω						**Stock**	
	68 Ω							
	100 Ω					**Stock**		

IZI CHIP TERMINATION OF AN 80 MHz TRANSMISSION LINE

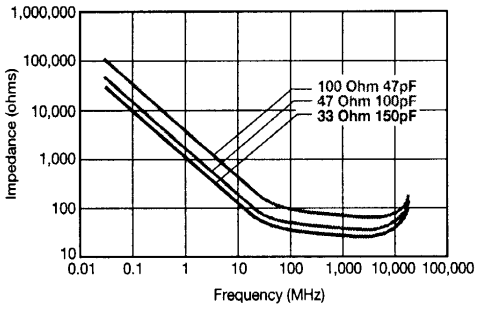


Ringing in an 80 MHz clock pulse (light line) is eliminated when terminated with a 100pF/47 ohm IZI Chip (bold line)

PERFORMANCE CHARACTERISTICS

Capacitance Performance	
Dielectric, TCC	0±500 ppm/°C
Capacitor Values	10, 15, 22, 33 ,47, 68, 100
Capacitor Tolerance	±20%
WVDC	25V
DF (1kHz)	2.5% Max.
Resistor Performance	
Resistor Values	10, 15, 22, 33 ,47, 68, 100
Tolerance	±10%
TCR	±250 ppm/°C

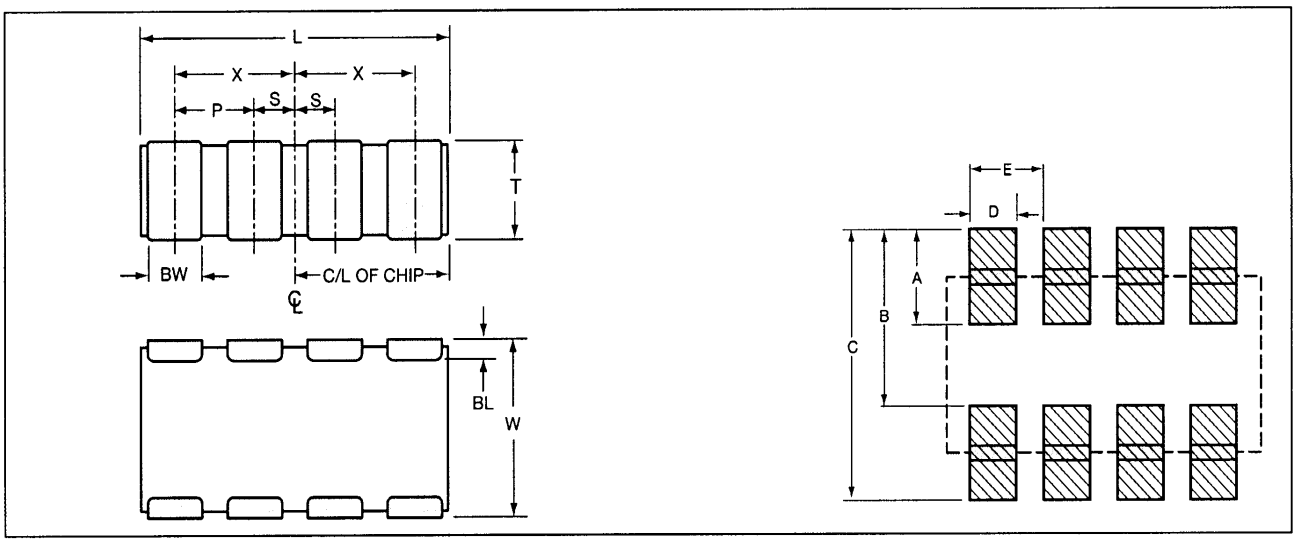
IMPEDANCE CHARACTERISTICS



|Z| Array

0612 Four Element Series Resistor-Capacitor

PHYSICAL DIMENSIONS AND PAD LAYOUT



PART DIMENSIONS millimeters (inches)

L	W	T	BW	BL	P	X	S
3.20±0.2 (.126±.008)	1.60±0.2 (.063±.008)	1.22 MAX (.048 MAX)	0.41±0.1 (.016±.004)	$0.18^{+0.25}_{-0.08}$ ($.007^{+.010}_{-.003}$)	0.76 REF (.030 REF)	1.14±0.1 (.045±.004)	0.38±0.1 (.015±.004)

PAD LAYOUT DIMENSIONS

A	B	C	D	E
0.89 (.035)	1.65 (.065)	2.54 (.100)	0.46 (.018)	0.79 (.030)

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Low Pass Filter Array-1206 Four Element

Integrated Passive Component

GENERAL DESCRIPTION

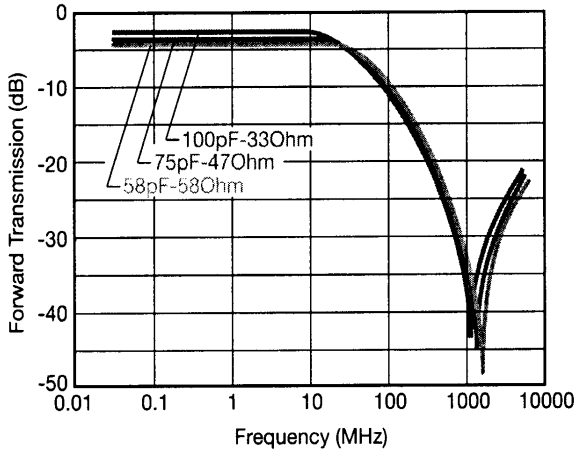
With the equivalent of 8 resistors and 4 capacitors in a 1206 package the circuit provides four equivalent RCR T-Filters with a dual common ground.

Primary applications are in signal filtering, EMI Suppression and Mobil or Cordless systems. The initial availability is for designs with capacitor values from 10–100 pF and resistance values from 10 to 1000 Ohms.

Filter 3dB points available from 1.6MHz to 1.6GHz

AVX Low Pass Filter

HP8753 Analyzer w/50 Ohm Calibration



APPLICATIONS

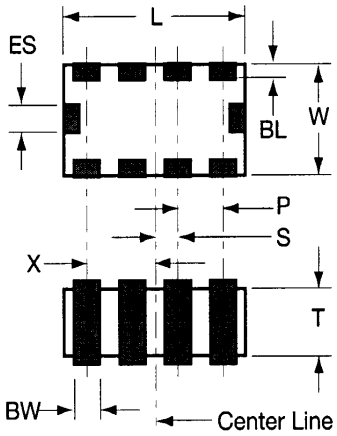
T-Filter Designs, Low Pass Filtering, I/O Cables, Digital Circuits, EMI Filtering, Digital Control Lines, IF Filter

KEY BENEFITS / FEATURES

- Significant space savings
- Filter 4 circuits with a single package
- Distributed capacitance
- Shielded resistance

CUSTOM DESIGNS

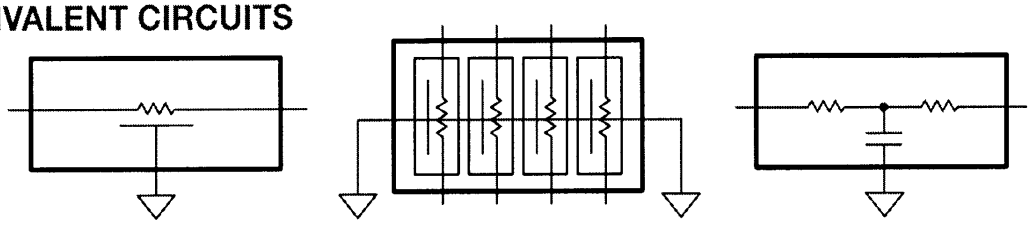
RAMBUS design for Differential Clock Filter



PART DIMENSIONS millimeters (inches)

L	W	T	BW	BL	P	X	S	ES
3.25±0.15 (.128±.006)	1.60±0.20 (.063±.008)	1.22 MAX (.048 MAX)	0.41±0.10 (.016±.004)	0.18 $^{+0.25}_{-0.08}$ (.007 $^{+0.10}_{-.003}$)	0.76 REF (.030 REF)	1.14±0.10 (.045±.004)	0.38±0.10 (.015±.004)	0.41±0.10 (.016±.004)

EQUIVALENT CIRCUITS



HOW TO ORDER

Z	3	F	4	3	Y	330	M	301	K	A	T	2	A
	Size 3=1206	**Filter Array**	**Number of Caps**	**Voltage** 3=25v	**Dielectric** Y= ±500PPM	**Capacitance Code**	**Cap Tolerance** M=±20%	**Resistance Code**	**Resist Tolerance** M=±10%	**Failure Rate** A=Not Applicable	**Terminations** T=Plated Ni and Solder	**Packaging Code (Reel Size)** 2=7" Reel Paper Tape	