

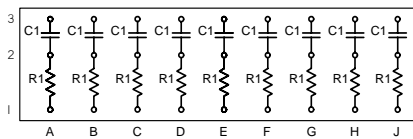
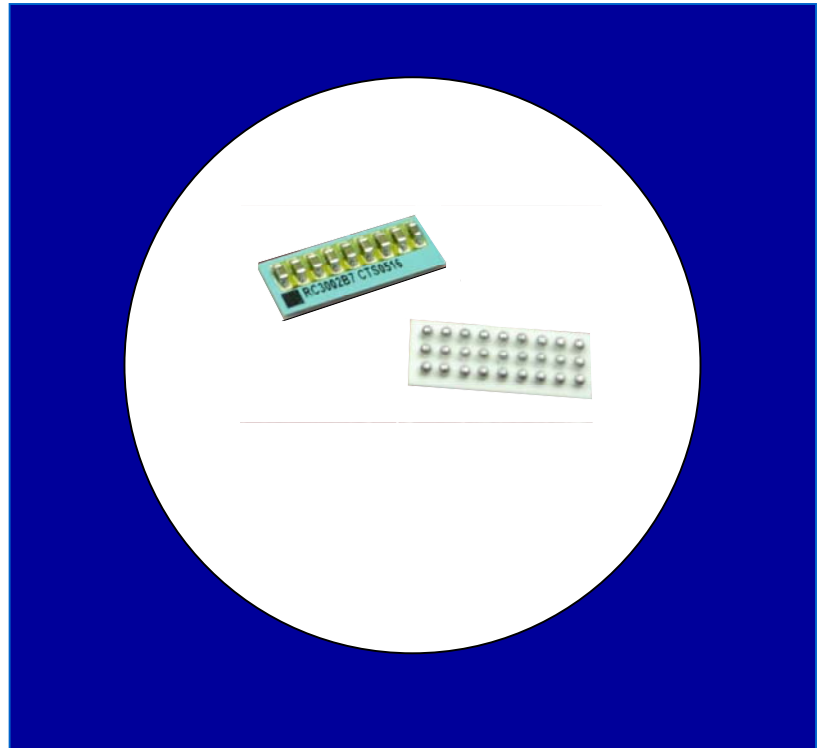
**Features**

- Integrated Resistor and Capacitor Network
- Excellent high frequency performance
- Slim BGA Package
- 1% Resistor Tolerance
- Dense packaging solution
- Significantly reduces component placements

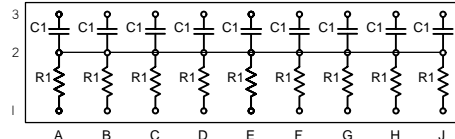
**Description**

This Resistor/Capacitor terminator network provides high performance termination.

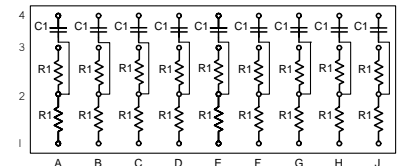
Designed with a ceramic substrate, this device virtually eliminates channel capacitance, a primary cause of reduced system performance. In addition, the BGA package eases routing design, saving the designer many hours of printed circuit layout.



Style J



Style K



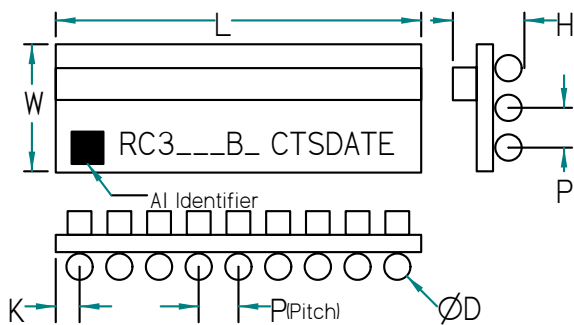
Style L

**Ordering Information**

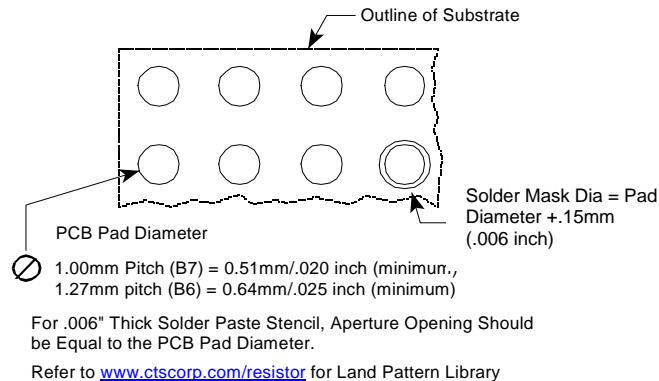
1.27mm Pitch Part Number	1.00mm Pitch Part Number	Style	Ball Grid Array Size	R1 Ω	Tolerance R1	C1	Cap Tolerance	Dielectric	DF
RC3001B6 <sup>1</sup>		J	3 x 9	50	±1%	33pf	±10%	NPO	2.5% max
RC3002B6	RC3002B7	K	3 x 9	50	±1%	0.1uf	±10%	X5R	5% max
RC3003B6 <sup>1</sup>	--	L	4 x 9	50	±1%	0.1uf	±10%	X5R	5% max
RC3004B6 <sup>1</sup>		J	3 x 9	50	±1%	100pf	±10%	NPO	2.5% max
RC3005B6		L	4 x 9	50	±1%	0.1uf	±10%	X5R	5% max
RC3007B6		J	3 x 9	50	±1%	100pf	±10%	NPO	2.5% max
RC3008B6		J	3 x 9	50	±1%	33pf	±10%	NPO	2.5% max

Note 1: These are obsolete encapsulated designs. Only the un-encapsulated part numbers may be ordered.  
(Tape and reel packaging information is shown on page 2)

## Mechanical Diagrams



## Recommended Land Pattern



1.27mm Pitch		L	W	H	P	D	K	Coplanarity
RC3001B6 <sup>1</sup>	mm	12.34±0.15	4.72±0.15	2.54 max	1.27±0.25	0.76±0.05	1.09±0.25	0.15
RC3002B6 <sup>1</sup>	inch	.486±.006	.186±.006	.100 max	.050±.010	.030±.002	.043±.010	.006
RC3004B6 <sup>1</sup>								
RC3003B6 <sup>1</sup>	mm	12.34±0.15	5.99±0.15	2.54 max	1.27±0.25	0.76±0.05	1.09±0.25	0.15
	inch	.486±.006	.236±.006	.100 max	.050±.010	.030±.002	.043±.010	.006
RC3005B6	mm	11.43±0.15	5.08±0.15	2.03 max	1.27±0.25	0.76±0.05	1.02±0.25	0.15
	inch	.450±.006	.200±.006	.080 max	.050±.010	.030±.002	.040±.010	.006
RC3007B6	mm	11.43±0.15	3.81±0.15	2.03 max	1.27±0.25	0.76±0.05	1.02±0.25	0.15
RC3008B6	inch	.450±.006	.150±.006	.080 max	.050±.010	.030±.002	.040±.010	.006
1.0mm Pitch		L	W	H	P	D	K	Coplanarity
RC3002B7	mm	9.64±0.15	3.64±0.15	1.83 max	1.00±0.25	0.64±0.05	0.82±0.25	0.15
	inch	.380±.006	.143±.006	.072 max	.039±.010	.025±.002	.033±.010	.006

Note 1: These are obsolete encapsulated designs. Only the un-encapsulated part numbers may be ordered. RC3005B6 replaces RC3003B6, RC3007B6 replaces RC3004B6, and RC3008B6 replaces RC3001B6.

## Electrical Specifications

Resistor Tolerance:	± 1.0%
TCR	± 200ppm/°C
Operating Temperature Range	-55°C to +125°C (with NPO capacitors) -55°C to +85°C (with X5R capacitors)
Maximum Resistor Power:	0.05 Watts min. at 70°C (Not to exceed total package power)
Maximum Package Power:	1.0 Watts at 70°C
Maximum Processing Temperature:	225°C, 30 sec. (Encapsulated Design) 235°C, 30 sec. (Un-encapsulated Design)

Note: Maximum resistor power will vary by resistance value.

## Packaging Information

Suffix	TR7	TR13
Tape Width	24 mm	24mm
Carrier Pitch	8 mm	8 mm
Reel Diameter	7 inch	13 inch
Parts/Reel	1,000	4,000

### Part Number Coding

7 inch reel, Add TR7 to part number, example RC3001B6TR7

13 inch reel, Add TR13 to part number, example RC3001B6TR13

(Bulk packaging is not available)

