

# RC Series 3000 **Technical** Data

#### Features

- Integrated Resistor and Capacitor • Network
- Excellent high frequency performance •
- Slim BGA Package ٠
- 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.





## **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
RC3002B6	RC3002B7	К	3 x 9	50	±1%	0.1uf	±10%	X5R	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
RC3010B6		L	4 x 9	100	±1%	0.1uf	±10%	X5R	5% max

(Tape and reel packaging information is shown on page 2)

## **Mechanical Diagrams**

#### **Recommended Land Pattern**





For .006" Thick Solder Paste Stencil, Aperture Opening Should be Equal to the PCB Pad Diameter.

Refer to www.ctscorp.com/resistor for Land Pattern Library

1.27mr	n Pitch	L	W	Н	Р	D	K	Coplanarity
RC3002B6	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
	inch	.450±.006	.150±.006	.080 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
RC3010B6	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	n Pitch	L	W	Н	Р	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

# **Electrical Specifications**

Resistor Tolerance:	± 1.0%
TCR	± 200ppm/°C
Operating Temperature	-55°C to +125°C (with NPO capacitors)
Range	-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	235°C 30 sec
Temperature:	200 0, 00 360.

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	750	3,000		

#### 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)

