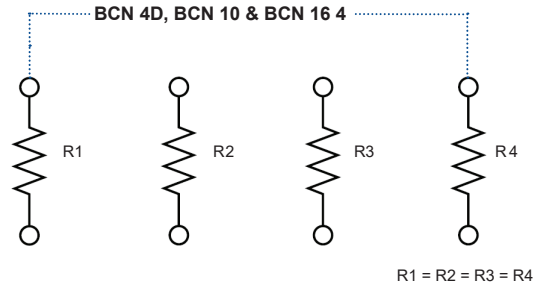
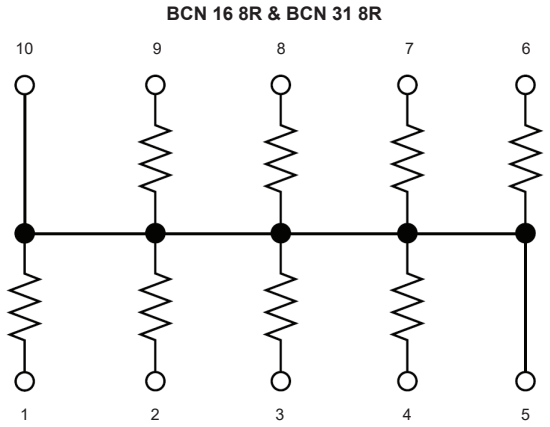
Circuits

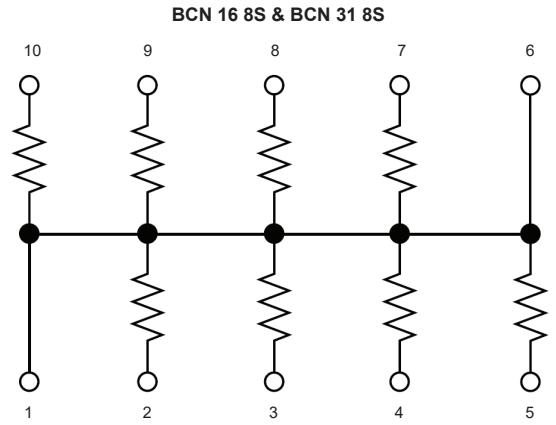
Isolated

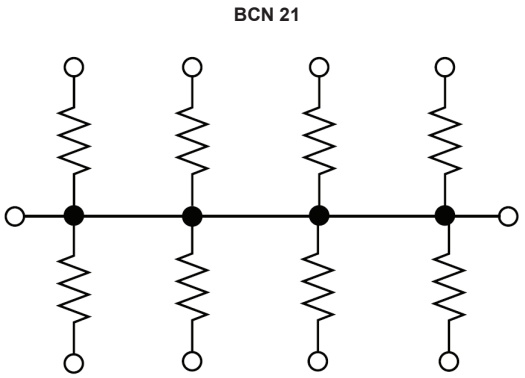


Reverse Bussed



Standard Bussed





Environmental Data

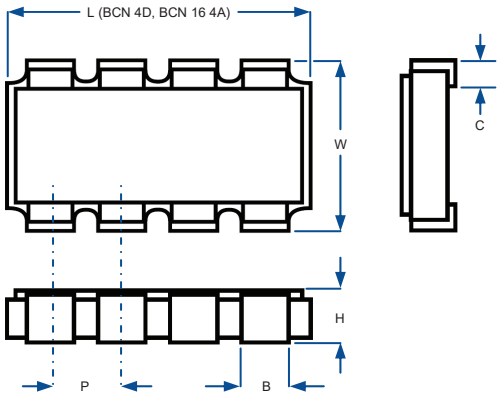
Test	Condition	ΔR% (+0.1Ω)	
		±200ppm/°C TCR	±100ppm/°C TCR
Load life	1000 hrs cyclic load @ 70°C	3	1
Short term overload	2.5 x rated voltage for 5s	2	0.25
High temperature operation	1000 hrs @ 155°C	3	1
Temperature cycling	5 cycles, -55 to +155°C	1	1
Moisture resistance	1000 hrs @ 40°C, 95% RH	3	1
Resistance to solder heat	260°C for 10s	1	0.25
Sulphur resistance[1]	1000 hrs @ 50°C, 92% RH, 3-5ppm H_2S	0.5	0.5

Note 1 – Anti-sulphur construction only

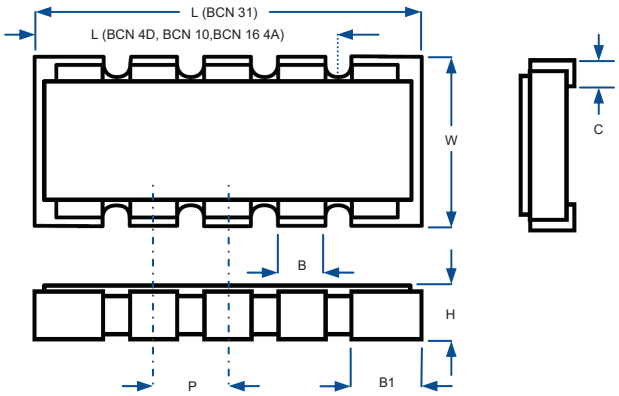
Physical Data (Inch /mm)

Exterior Termination (Convex)

Scalloped Edge: Models BCN 4D, 16 4A

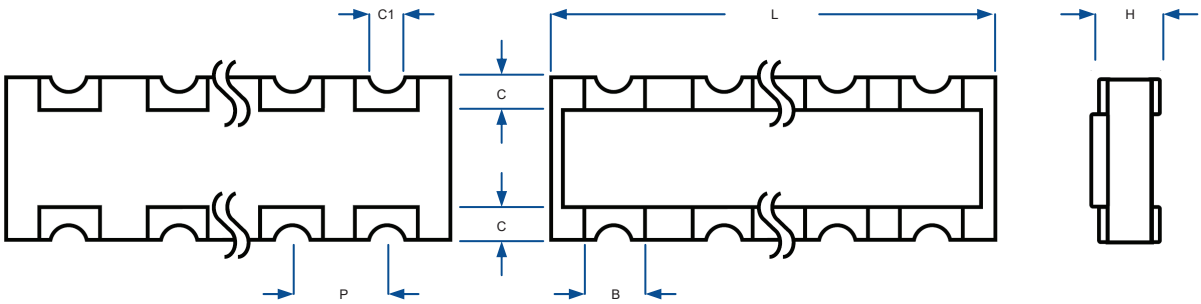


Square Edge: Models BCN 16 4AB, 31



	L	W	H	P	B	B1	C
BCN 4D	.210 ±.008	.122 ±.008	.022 ±.004	.050 ±.008	.030 ±.008	-	.012 ±.008
	5.34 ±0.20	3.10 ±0.20	0.55±0.10	1.27±0.20	0.80 ±0.20		0.30 ±0.20
BCN 10	.079 ±.004	.039 ±.004	.018 ±.004	.020 ±.002	.012 ±.002	.016±.002	.012±.006
	2.00 ±0.10	1.00 ±0.10	0.45 ±0.10	0.50 ±0.05	0.30 ±0.05	0.40 ±0.05	0.3 ±0.15
BCN 16 4A/ AB	.126 ±.004	.063 ±.004	.020 ±.004	.031 ±.002	.020 ±.004	-	.009 ±.005
	3.20 ±0.10	1.60 ±0.10	0.50 ±0.10	0.80 ±0.05	0.50 ±0.10		0.229 ±0.125
BCN 31	.252 ±.008	.122+.012,-.008	.022 ±.004	.050 ±.002	.032 ±.004	.041±.004	.012 ±.004
	6.40 ±0.20	3.1 +0.3, -0.2	0.55 ±0.10	1.27 ±0.051	0.80 ±0.10	1.05±0.10	0.30 ±0.10

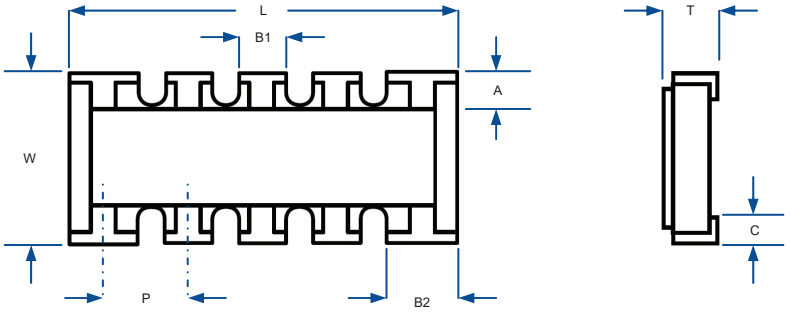
Interior Termination (Concave)
Square Edge: Models BCN 4 DBI, 16 4ABI, 31



	L	W	H	P	B	C	C1
BCN 4 DBI	.210 ±.008	.122 ±.008	.022 ±.004	.050 ±.008	.030 ±.008	.012 ±.008	-
	5.34 ±0.20	3.10 ±0.20	0.55 ±0.10	1.27 ±0.20	0.80 ±0.20	0.30 ±0.20	
BCN 16 4ABI	.126 ±.008	.063 ±.006	.024 ±.004	.031 ±.004	.016 ±.006	.012 ±.008	.012 ±.008
	3.20 ±0.20	1.60 ±0.15	0.60 ±0.10	0.80 ±0.10	0.40 ±0.15	0.30 ±0.20	0.30 ±0.20
BCN 31	.252 ±.008	.122 ±.008	.024 ±.004	.050	.028 ±.008	.012	.012 $^{+.008}_{-.004}$
	6.40 ±0.20	3.10 ±0.20	0.60 ±0.10	1.27	0.70 ±0.20	0.30	0.30 $^{+.02}_{-.01}$

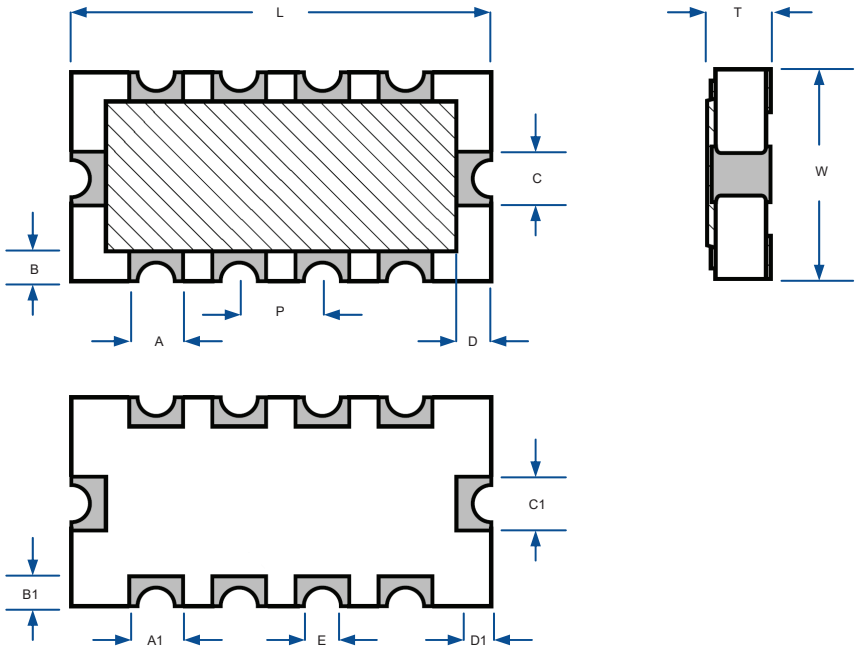
Physical Data (Inch /mm)

Exterior Termination (Convex)
Square Edge: Models BCN 16 8R, 8S



L	W	T	A	B1	B2	C	P
.126 ±.008	.063 ±.008	.020 ±.004	.012 ±.006	.014 ±.006	.020 ±.006	.008	.025
3.20 ±0.20	1.60 ±0.20	0.50 ±0.10	0.30 ±0.15	0.36 ±0.15	0.50 ±0.15	0.20	0.64

Interior Termination (Concave)
Square Edge: Models BCN 21



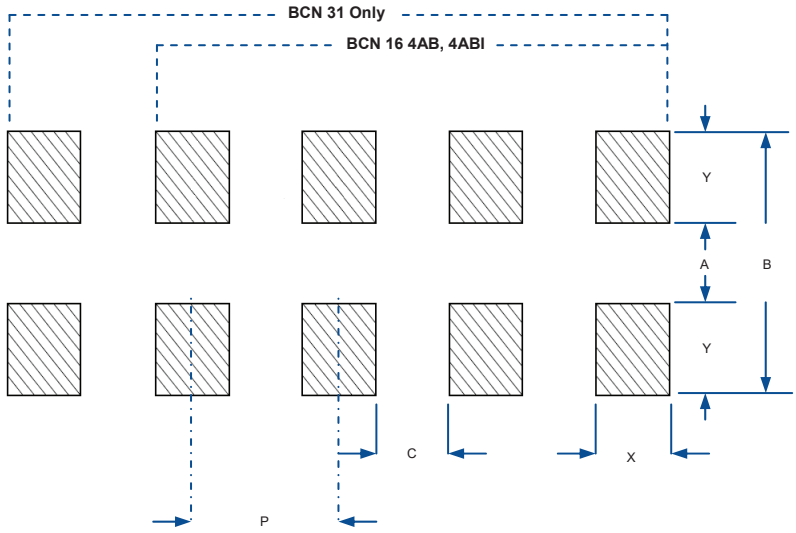
L	W	T	A	B	C	D
.157 ±.008	.083 ±.008	.021 ±.004	.020 ±.008	.010 ±.008	.020 ±.008	.012 ±.008
4.00 ±0.20	2.10 ±0.20	0.55 ±0.10	0.50 ±0.20	0.25 ±0.20	0.50 ±0.20	0.30 ±0.20

A1	B1	C1	D1	E	P
.016 ±.008	.014 ±.008	.020 ±.008	.014 ±.008	.012 Typ.	.032 Typ.
0.40 ±0.20	0.40 ±0.20	0.50 ±0.20	0.35 ±0.20	0.30	0.80

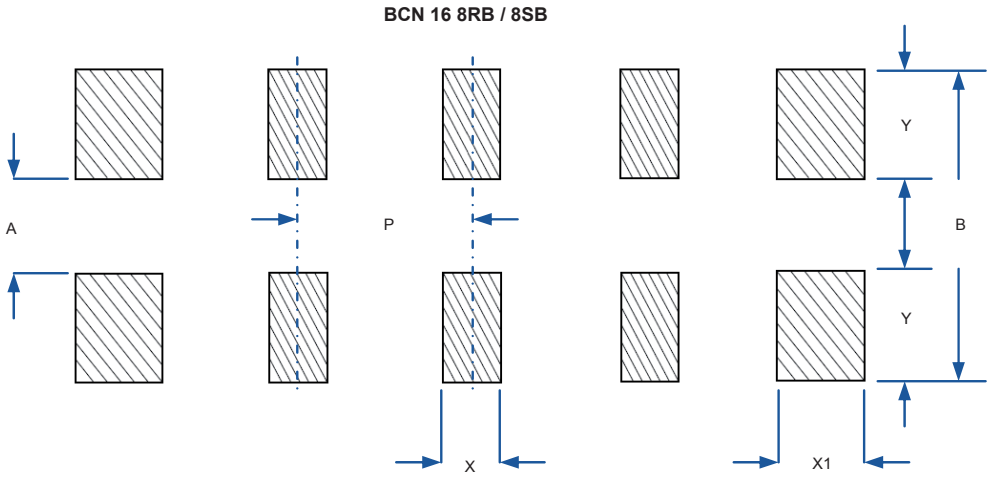
General Note

TT Electronics reserves the right to make changes in product specification without notice or liability.
All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

Solder pad layout (Inch / mm)



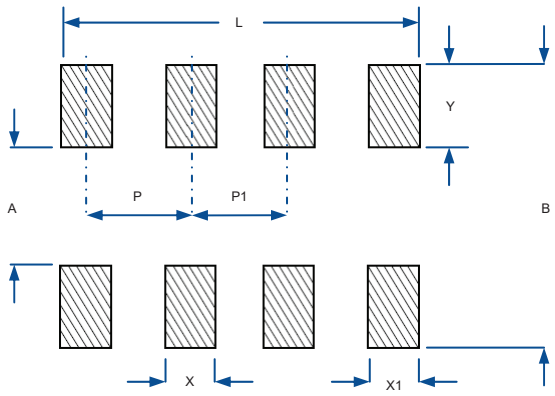
		Wave Solder Process					Re-flow Solder Process				
	P	A	B	C	X	Y	A	B	C	X	Y
BCN 4D/4DBI	.050	.087	.169	.022	.028	.041	.087	.154	.022	.028	.034
	1.27	2.20	4.30	0.57	0.70	1.05	2.20	3.90	0.57	0.70	0.85
BCN 16 4A, AB, ABI	.032	.039	.118	.014	.018	.039	.039	.118	.014	.018	.039
	0.80	1.00	3.00	0.35	0.45	1.00	1.00	3.00	0.35	0.45	1.00
BCN 31 8R, 8S	.050	.084	.148	.014	.036	.032	.084	.148	.014	.036	.032
	1.27	2.10	3.70	0.35	0.90	0.80	2.10	3.70	0.35	0.90	0.80



		Wave Solder Process					Re-flow Solder Process				
	P	A	B	X	X1	Y	A	B	X	X1	Y
BCN 16 8RB / 8SB	.025	.048	.096	.012	.018	.024	.048	.096	.012	.018	.024
	0.64	1.20	2.40	0.30	0.45	0.60	1.20	2.40	0.30	0.45	0.60

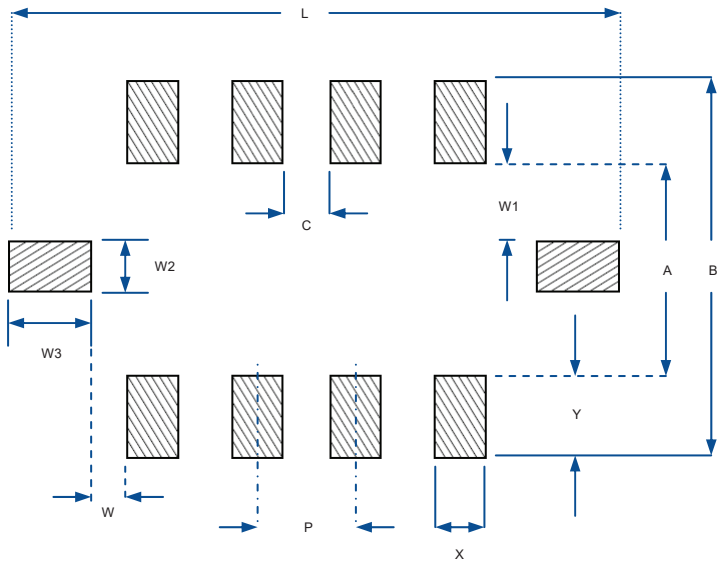
Solder pad layout (Inch / mm)

BCN 10



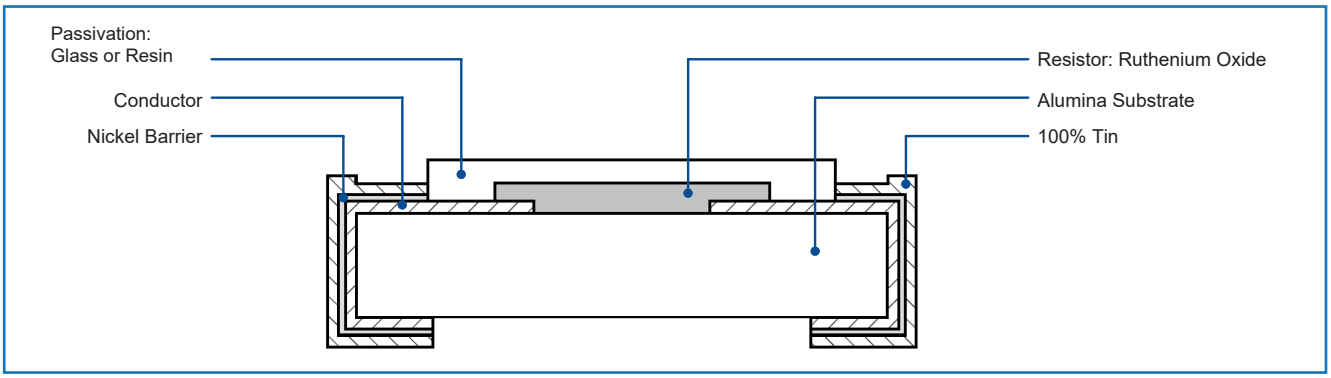
	P	P1	A	B	X	X1	Y	L
BCN 10	.024	.020	.020 ±.004	.060 ±.004	010 ±.004	.018 ±.004	.020 ±.004	.085 ±.004
	0.60	0.50	0.50 ±0.10	1.50 ±0.10	0.25 ±0.15	0.45 ±0.10	0.50 ±0.10	2.15 ±0.10

BCN 21



	P	A	B	C	X	Y	W	W1	W2	W3	L
BCN 21	.032	.060 ±.008	.120 ±.008	.016 ±.004	.016 ±.004	.030 ±.004	.012 ±.001	.015 ±.004	.030 ±.004	.030 ±.004	.196 ±.008
	0.80	1.20 ±0.20	3.00 ±0.20	0.40 ±0.10	0.40 ±0.10	0.75 ±0.10	0.31 ±0.02	0.38 ±0.10	0.75 ±0.10	0.75 ±0.10	4.98 ±0.20

Construction



Ordering Procedure

Example: BCN164ABZ102J7S (BCN 1.6mm wide, 4 resistors, isolated circuit, square edge, convex terminations with TCR ±100ppm/°C at 1 kilohm ±5%, on a 7" reel, anti-sulphur construction, Pb-free).

B	C	N	1	6	4	A	B		Z	1	0	2		J	7		S
1			2		3	4	5		6	7	8			9	10		11

1 Series	2 Width	3 Number of Resistors	4 Circuit	5 Edge	6 Termination	7 TCR (ppm/°C)	8 Value	9 Tolerance	10 Packaging	11 Construction
BCN	Blank= 3.1mm	4	A=Isolated	Blank= Scalloped	Blank= External (convex)	Blank= ±200	3 digits for E24 at 2% or 5%	F=±1%	7=7" reel	Blank= Standard
		8	D=Isolated					G=±2%	13=13" reel	
	10=1.0mm		S=Standard bussed	B=Square		Z=±100	4 digits for uniquely E96 and for all values at 1%	J=±5%		S=Anti-sulphur
	16=1.6mm				I=Internal (concave)			(Blank for jumper)		
	21=2.1mm		R=Reverse bussed							
	31=3.1mm						JP=Jumper			

Valid Combinations (1 – 6)								Valid Options (7, 8 & 11)	Packaging Quantity & Tape (10)
B	C	N	1	0	4	A	B	JP=Jumper, S=Anti-sulphur	7=10,000/reel, 13=40,000/reel, Paper tape
B	C	N	1	6	4	A		Z=±100ppm/°C, JP=Jumper, S=Anti-sulphur	7=5000/reel, 13=20,000/reel, Paper tape
B	C	N	1	6	4	A	B	Z=±100ppm/°C, JP=Jumper, S=Anti-sulphur	
B	C	N	1	6	4	A	B	I JP=Jumper	
B	C	N	1	6	8	S	B		
B	C	N	1	6	8	R	B	S=Anti-sulphur	
B	C	N	2	1	8	S	B	I	7=4000/reel, 13=16,000/reel, Plastic tape
B	C	N			4	D		JP=Jumper, S=Anti-sulphur	
B	C	N			4	D	B	I JP=Jumper	
B	C	N	3	1	8	S	B		
B	C	N	3	1	8	R	B		
B	C	N	3	1	8	S	B	I	
B	C	N	3	1	8	R	B	I	