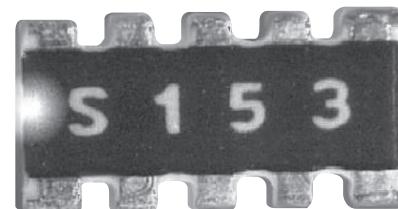


BCN Series

Features

- Sulphur resistant version available (Tested to ASTM-B809)
- AEC-Q200 (BCN10 and BCN164AB)
- Convex terminations
- Isolated and bussed versions



All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Summary of Types

Type	Part Number Start	Width (mm)	Resistor Elements	Circuit	Package Size	Scalloped Convex	Square Convex
BCN10	BCN104AB	1.0	0402 x 4		0804		
BCN164	BCN164A	1.6	0603 x 4	Isolated	1206	Scalloped	
	BCN164AB					Convex	Square Convex
BCN168	BCN168SB	1.6	0603 x 8	Bussed		Scalloped Convex	
	BCN168RB					Convex	Square Convex

Electrical Data

		BCN10	BCN164	BCN168
Resistor power rating @70°C	mW	63	250	32
Package power rating @70°C	mW			
Limiting element voltage	V	25	50	25
Maximum overload voltage	V	63	125	63
Resistance range	ohms	10R – 1M0		100R – 1M0
Resistance tolerance	%	1, 5	1, 2, 5	5
TCR	ppm/°C		±200	
Standard values		E24 (for 2% or 5% tolerance), E96 (for 1% tolerance)		
Ambient temperature range	°C		-55 to +155	

General Note

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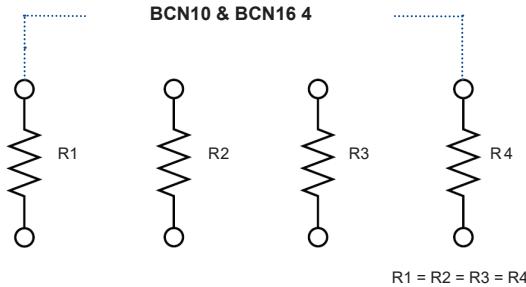
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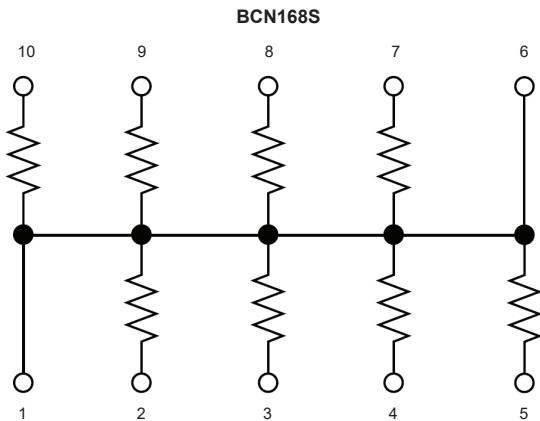
BCN Series

Circuits

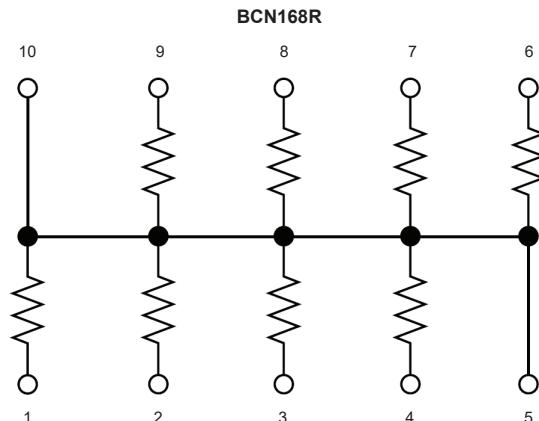
Isolated



Standard Bussed



Reverse Bussed



Environmental Data

Test	Condition	$\Delta R\% (+0.1\Omega)$
Load life	1000 hrs cyclic load @ 70°C	3
Short term overload	2.5 x rated voltage for 5s	2
High temperature operation	1000 hrs @ 155°C	3
Temperature cycling	5 cycles, -55 to +155°C	1
Moisture resistance	1000 hrs @ 40°C, 95% RH	3
Resistance to solder heat	260°C for 10s	1
Sulphur resistance ¹	1000 hrs @ 50°C, 92% RH, 3-5ppm H ₂ S	0.5

Note 1 – Anti-sulphur construction only

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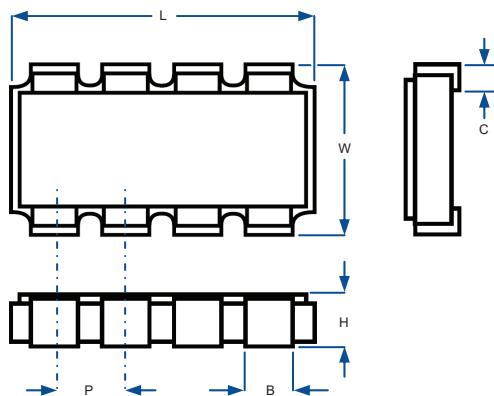
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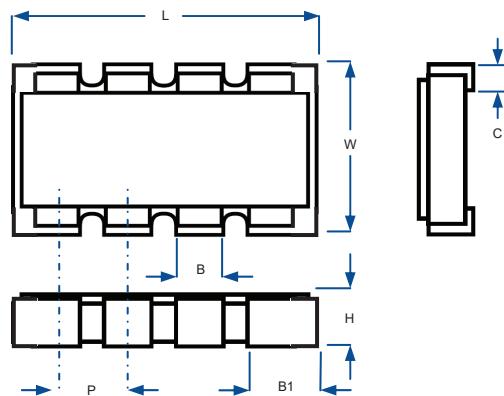
BCN Series

Physical Data (Inch /mm)

BCN164A (scalloped convex)

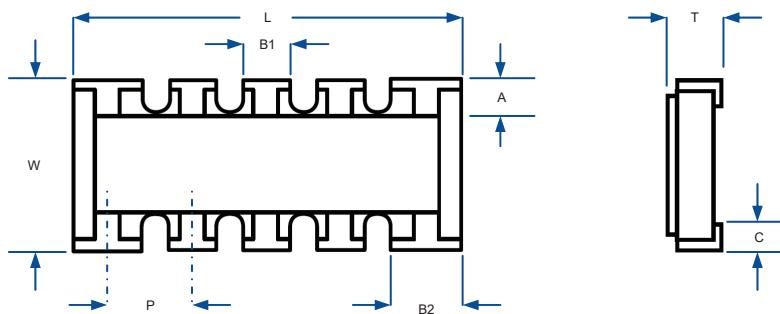


BCN10, BCN164AB (square convex)



	L	W	H	P	B	B1	C
BCN 10	.079 ±.004	.039 ±.004	.018 ±.004	.020 ±.002	.012 ±.002	.016 ±.002	.012 ±.006
	2.00 ±.10	1.00 ±.10	0.45 ±.10	0.50 ±.05	0.30 ±.05	0.40 ±.05	0.3 ±.15
BCN164A/AB	.126 ±.004	.063 ±.004	.020 ±.004	.031 ±.002	.020 ±.004	-	.009 ±.005
	3.20 ±.10	1.60 ±.10	0.50 ±.10	0.80 ±.05	0.50 ±.10	-	0.229 ±.125

BCN168 (square convex)



L	W	T	A	B1	B2	C	P
.126 ±.008	.063 ±.008	.020 ±.004	.012 ±.006	.014 ±.006	.020 ±.006	.008	.025
	3.20 ±.20	1.60 ±.20	0.50 ±.10	0.30 ±.15	0.36 ±.15	0.50 ±.15	0.64

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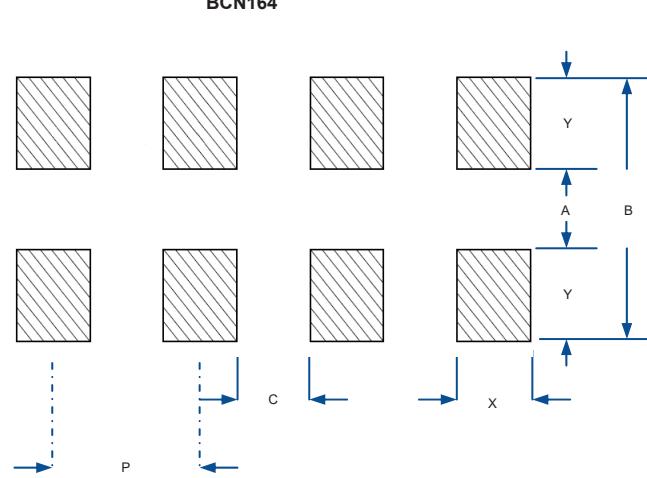
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BCN Series

Solder pad layout (Inch / mm)

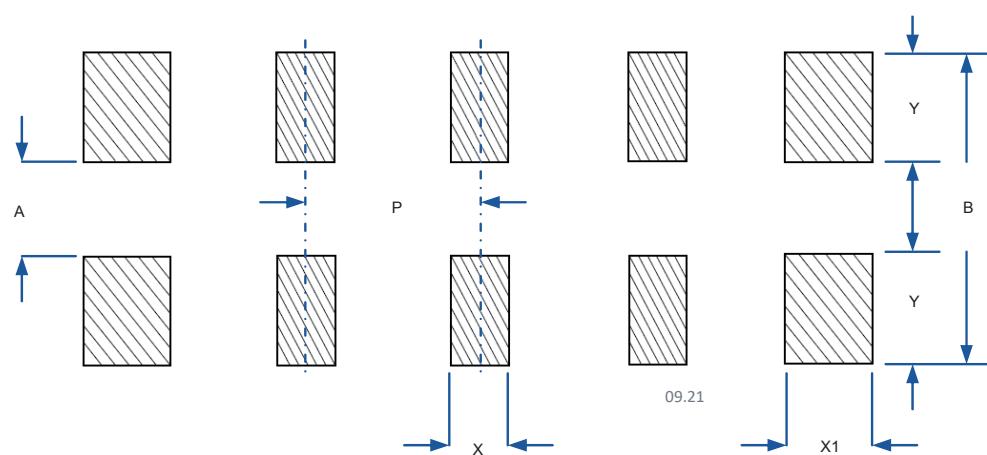
BCN164



BCN164A/AB

BCN164A/AB	Wave Solder Process						Re-flow Solder Process					
	P	A	B	C	X	Y	A	B	C	X	Y	
	.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	

BCN168



BCN 16 8RB / 8SB

BCN 16 8RB / 8SB	Wave Solder Process						Re-flow Solder Process					
	P	A	B	X	X1	Y	A	B	X	X1	Y	
	.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	

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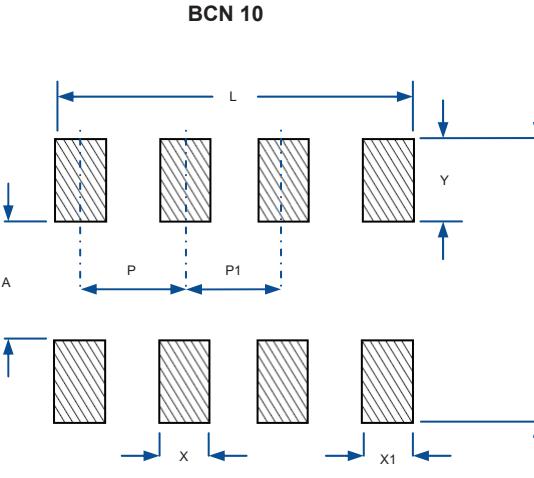
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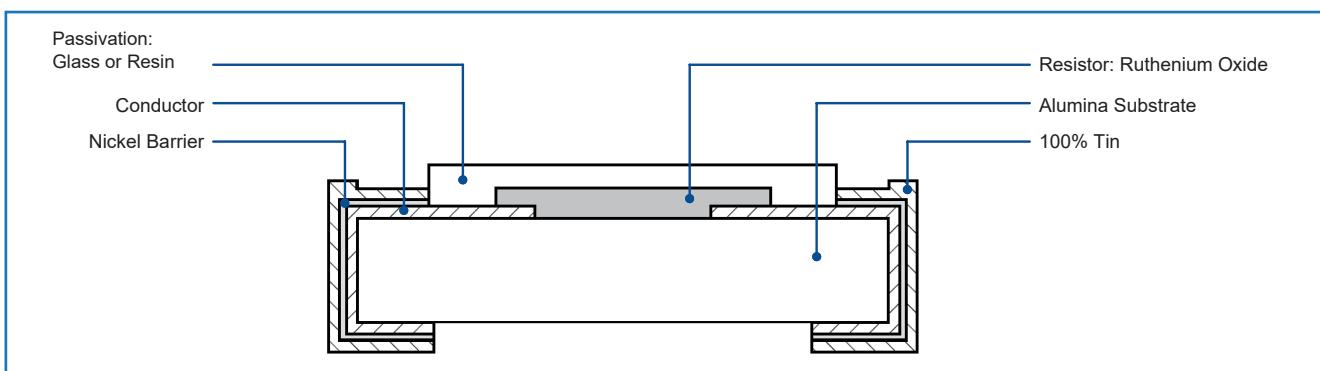
BCN Series

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 ±.10	1.50 ±.10	0.25 ±.15	0.45 ±.10	0.50 ±.10	2.15 ±.10

Construction



Marking

BCN parts are marked with ohmic values. 2% and 5% tolerance parts are marked with three characters (e.g. 102). 1% tolerance parts may be marked with 3 or 4 characters (e.g. 102, 1001, 4991)

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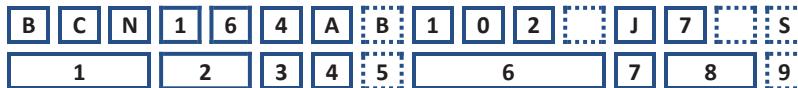
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BCN Series

Ordering Procedure

Example: BCN164AB102J7S (BCN 1.6mm wide, 4 resistors, isolated circuit, square edge, convex terminations at 1 kilohm $\pm 5\%$, on a 7" reel, anti-sulphur construction, Pb-free).



1 Series	2 Width	3 Number of Resistors	4 Circuit	5 Edge	6 Value	7 Tolerance	8 Packaging	9 Construction
BCN	10=1.0mm	4	A=Isolated	Blank= Scalloped S=Standard bussed B=Square R=Reverse bussed	3 digits for E24 at 2% or 5% 4 digits for uniquely E96 and for all values at 1% JP=Jumper	F= $\pm 1\%$	7=7" reel (standard)	Blank= Standard S=Anti-sulphur
	16=1.6mm	8	G= $\pm 2\%$			13=13" reel		
			J= $\pm 5\%$ (Blank for jumper)					

Valid Options (1 - 5)					Valid Options (6 & 9)			Packaging Quantity & Tape (8)	
B C N 1 0 4 A B					JP=Jumper, S=Anti-sulphur (5% tolerance & 7" reel only)			7=10,000/reel, 13=40,000/reel, Paper tape	
B C N 1 6 4 A B					JP=Jumper, S=Anti-sulphur (1 or 2% tolerance & 7" reel only)				
B C N 1 6 4 A B					JP=Jumper, S=Anti-sulphur (1 or 5% tolerance only)				
B C N 1 6 8 S B								7=5000/reel, 13=20,000/reel, Paper tape	
B C N 1 6 8 R B					S=Anti-sulphur (7" reel only)				

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