

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)

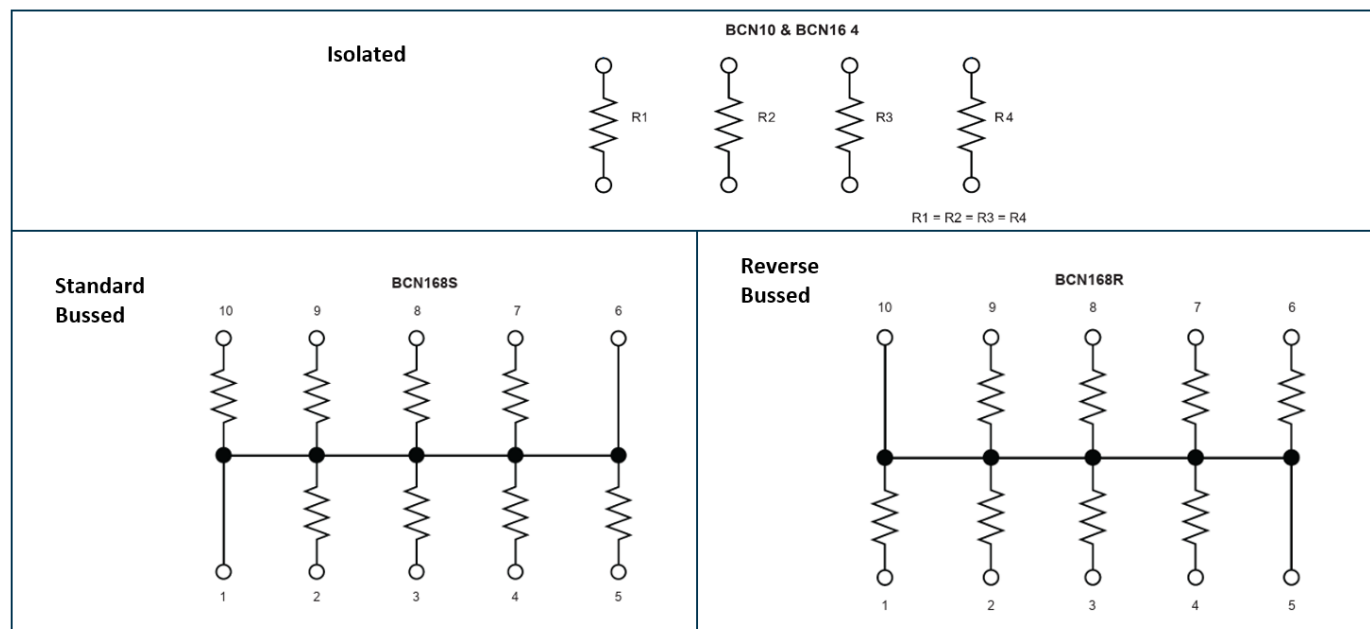
Summary of Types

Type	Part Number Start	Width (mm)	Resistor Elements	Circuit	Package Size	Scalloped Convex	Square Convex
BCN10	BCN104AB	1	0402 x 4	Isolated	0804		
BCN164	BCN164A	1.6	0603 x 4		1206		
	BCN164AB						
BCN168	BCN168SB		0603 x 8	Standard Bussed			
	BCN168RB			Reverse Bussed			

Electrical Data

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

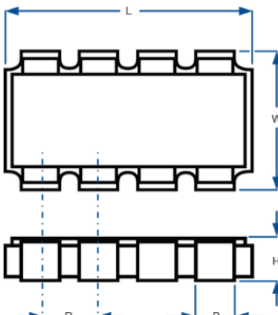
Circuit Data



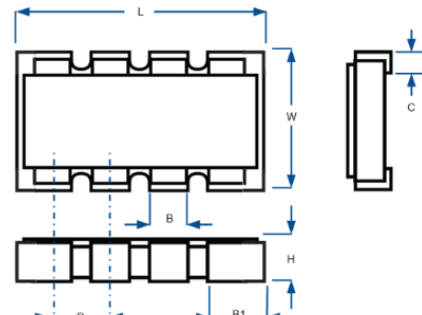
Physical Data

Dimensions in mm and weight in mg										
Type	L	W	H	P	B	B1	C	Wt. nom.		
BCN10	2 ±0.1	1 ±0.1	0.45 ±0.1	0.5 ±0.05	0.3 ±0.1	0.4 ±0.1	0.26 ±0.19	1.97		
BCN164	3.2 ±0.15	1.6 ±0.15	0.5 ±0.15	0.8 ±0.05	0.5 ±0.1	-	0.28 ±0.18	6.66		

BCN164A (scalloped convex)

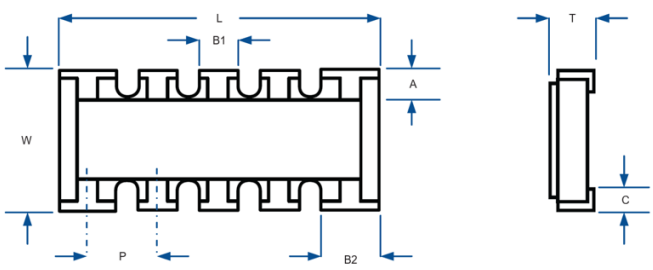


BCN10, BCN164AB (square convex)

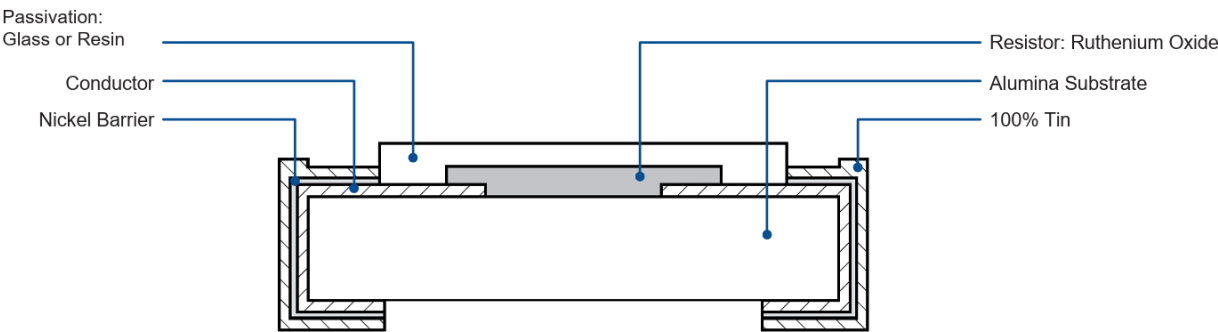


Dimensions in mm and weight in mg											
Type	L	W	T	A	B1	B2	C nom.	P nom.	Wt. nom.		
BCN168	3.2 ±0.2	1.6 ±0.2	0.5 ±0.1	0.3 ±0.15	0.36 ±0.15	0.5 ±0.15	0.2	0.64	7.21		

BCN168 (square convex)



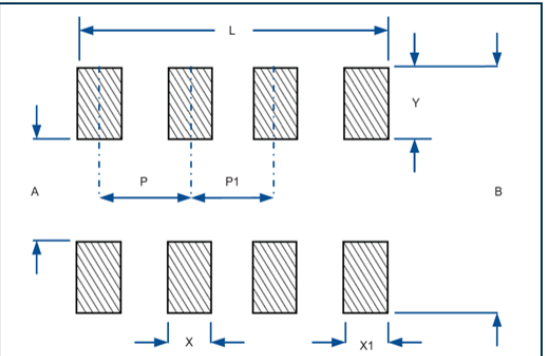
Construction

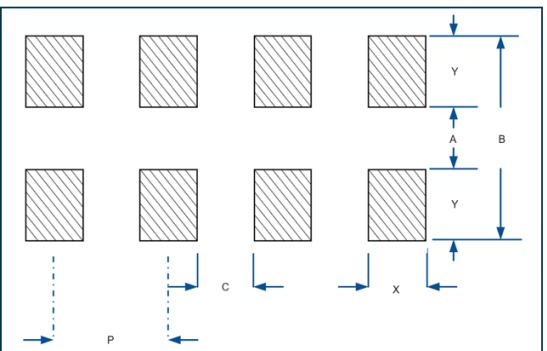


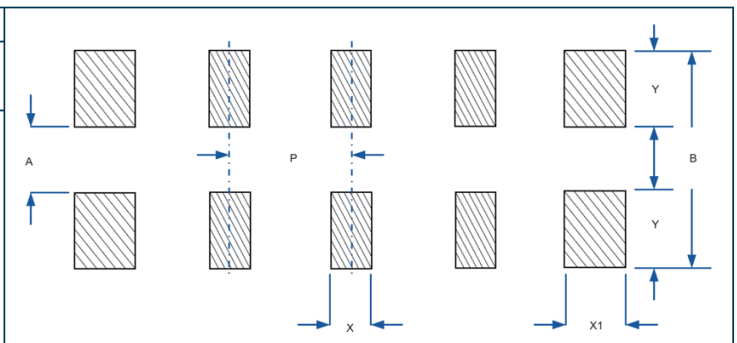
Marking

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

Recommended Solder Pads

Dimensions in mm									
Type	P	P1	A	B	X	X1	Y	L	
BCN10	0.6 ±0.1	0.5	0.5 ±0.1	1.5 ±0.3	0.25 ±0.15	0.45 ±0.1	0.5 ±0.15	2.15 ±0.1	

Dimensions in mm							
Type	P	A	B	C	X	Y	
BCN164	0.8	1 ±0.2	3 ±0.15	0.35	0.45	1	

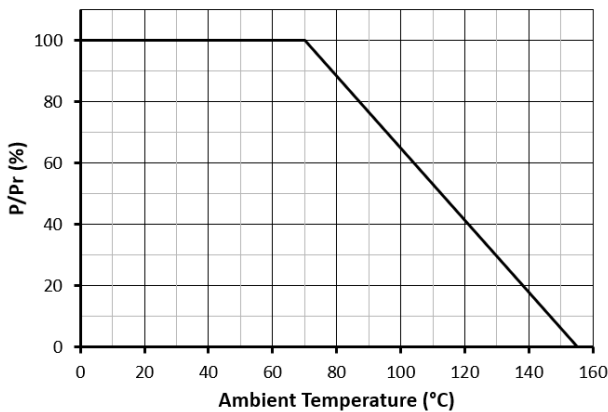
Dimensions in mm							
Type	P	A	B	X	X1	Y	
BCN168	0.64	1.2	2.4	0.3	0.45	0.6	

Performance Data

Test	Method	Maximum (+0.1Ω)
Load life	1000 hours, cyclic load at 70°C	±ΔR% 3
Short term overload	2.5 x rated voltage for 5s	±ΔR% 2
High temperature operation	1000 hours, 155°C	±ΔR% 3
Temperature cycling	5 cycles, -55 to +155°C	±ΔR% 1.5
Moisture resistance	1000 hours, 40°C, 95% RH	±ΔR% 3
Resistance to solder heat	260°C for 10s	±ΔR% 1
Sulphur resistance ¹	1000 hours, 50°C, 92% RH, 3-5ppm H ₂ S	±ΔR% 0.5

Note 1: Anti-sulphur construction only.

Temperature Derating



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)

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

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

Valid Options										Packaging Quantity & Tape		
1			2		3	4	5	6	9		8	
B	C	N	1	0	4	A	B	JP	S (5% tolerance & 7" reel only)		7 = 10,000/reel, 13 = 40,000/reel, Paper tape	
B	C	N	1	6	4	A		JP	S (1% tolerance & 7" reel only)		7 = 5,000/reel, 13 = 20,000/reel, Paper tape	
B	C	N	1	6	4	A	B	JP	S			
B	C	N	1	6	8	S	B					
B	C	N	1	6	8	R	B		S (7" reel only)			