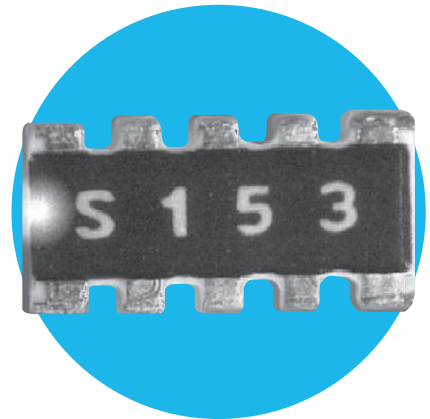


Thick Film Chip Arrays

BCN Series

- Sulphur resistant version available (Tested to ASTM-B809)
- AEC-Q200 (BCN10, BCN164AB and BCN4D)
- 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	Isolated	0804		
BCN164	BCN164A	1.6	0603 x 4		1206		
	BCN164AB						
BCN168	BCN168SB		0603 x 8	Bussed			
	BCN168RB						
BCN4D	BCN4D	3.1	1206 x 4	Isolated	2112		
BCN31	BCN318SB		1206 x 8	Bussed ¹	2512		
	BCN318RB						

Note 1 – For R/2R ladder circuit see separate BCN31L datasheet

Electrical Data

		BCN10	BCN164	BCN168	BCN4D	BCN31
Resistor power rating @70°C	mW	63		32	125	63
Package power rating @70°C	mW	250			500	
Limiting element voltage	V	25	50	25	75	50
Maximum overload voltage	V	63	125	63	188	125
Resistance range	ohms	10R – 1M0		100R – 1M0	10R – 1M0	22R – 1M0
Resistance tolerance	%	1, 5	1, 2, 5	5	1, 5	1, 2, 5
TCR	ppm/°C	±200				
Standard values		E24 preferred, E96 available				
Ambient temperature range	°C	-55 to +155				

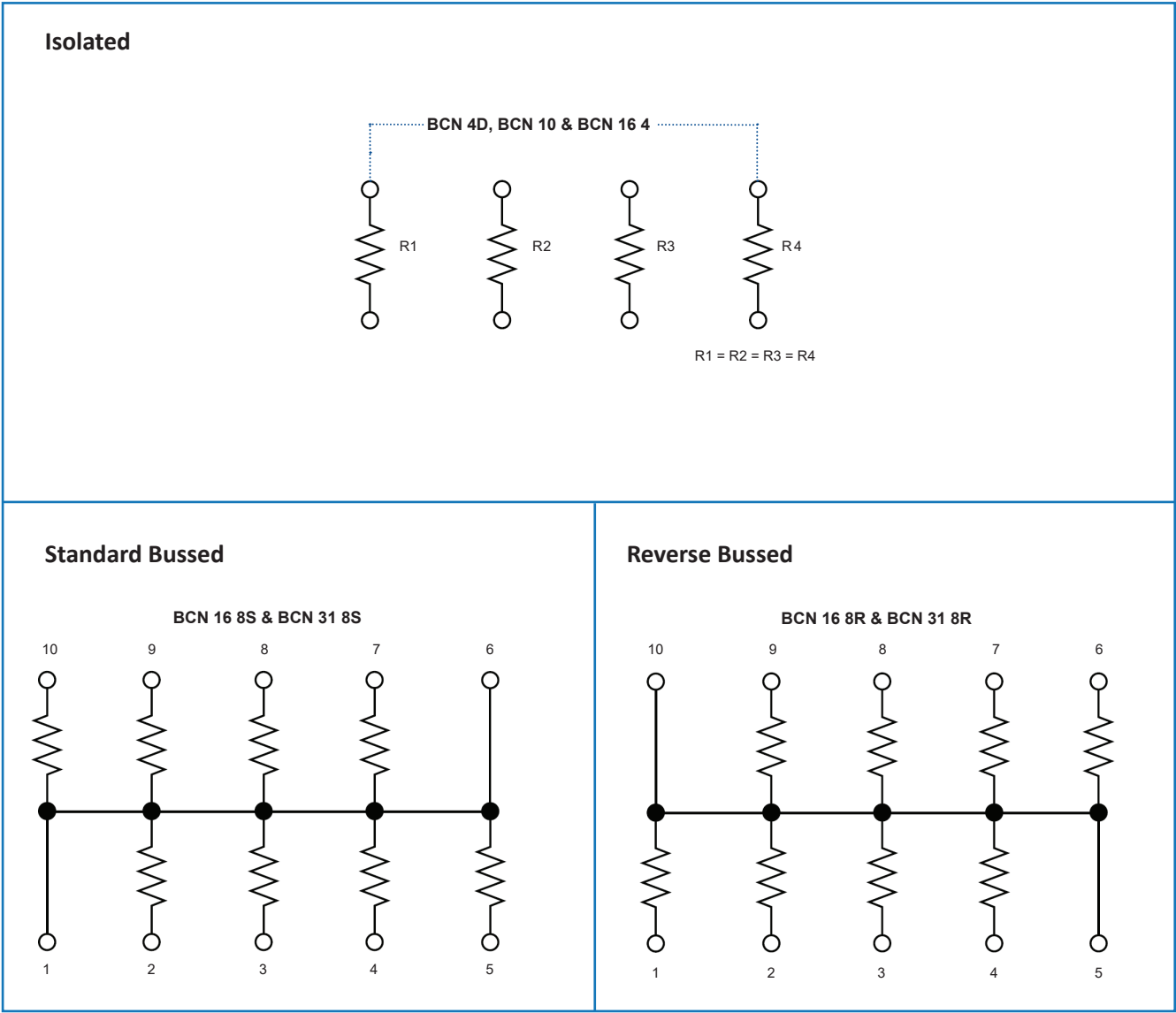
General Note

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.

BI Technologies IRC Welwyn

www.ttelectronics.com/resistors

Circuits



Environmental Data

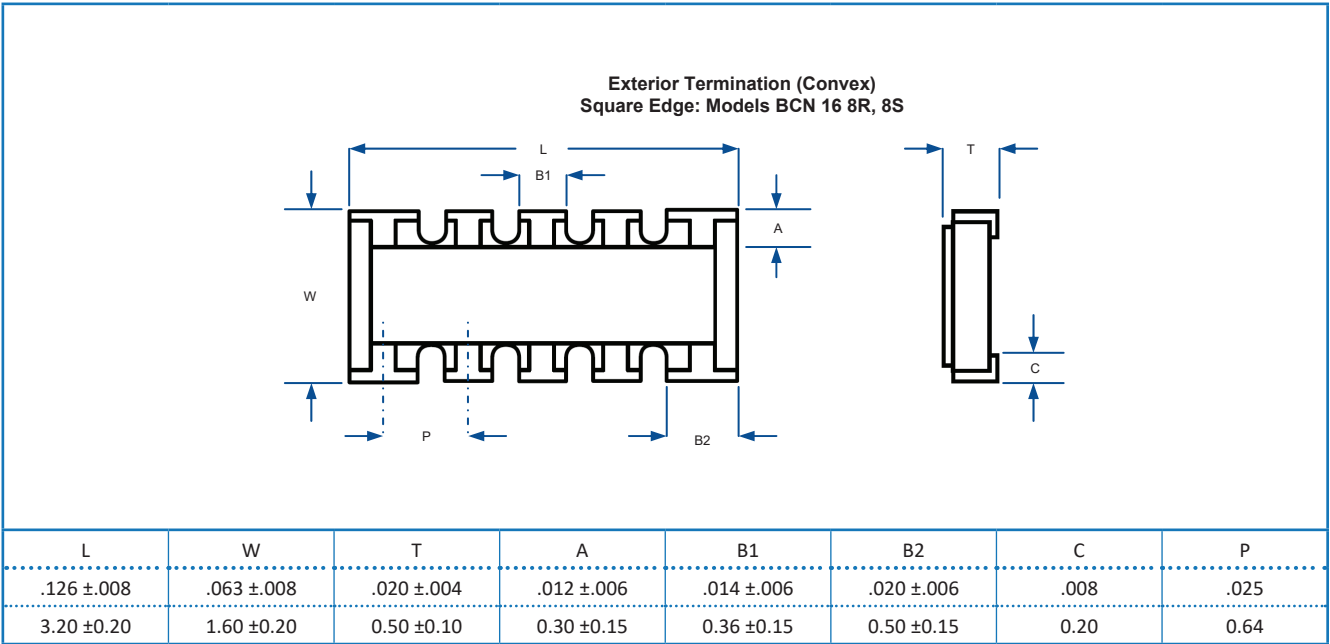
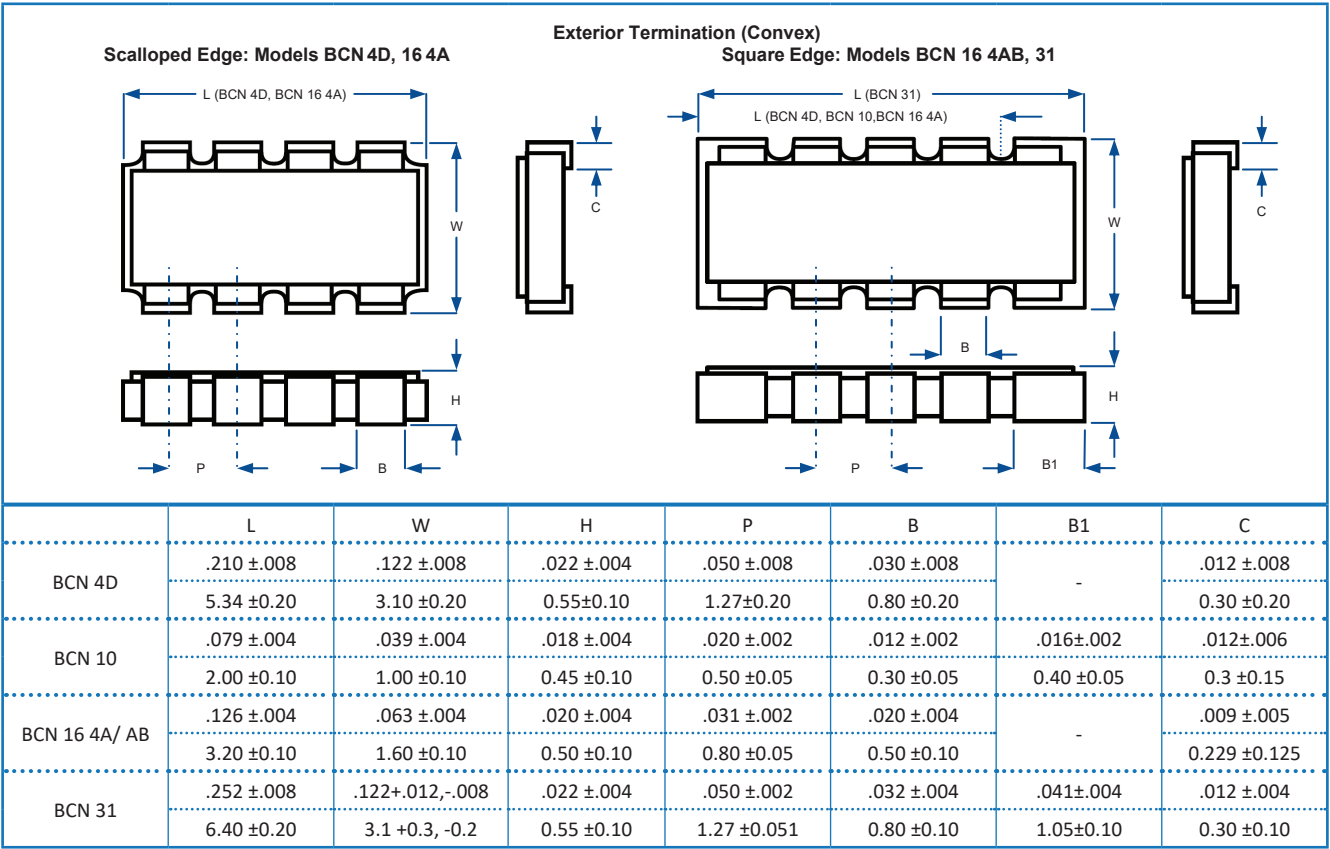
Test	Condition	$\Delta R\%$ (+0.1 Ω)
Load life	1000 hrs cyclic load @ 70°C	3
Short term overload	2.5 x rated voltage for 5s	2
High temperature operation	1000 hrs @ 155°C	3
Temperature cycling	5 cycles, -55 to +155°C	1
Moisture resistance	1000 hrs @ 40°C, 95% RH	3
Resistance to solder heat	260°C for 10s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

Note 1 – Anti-sulphur construction only

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.

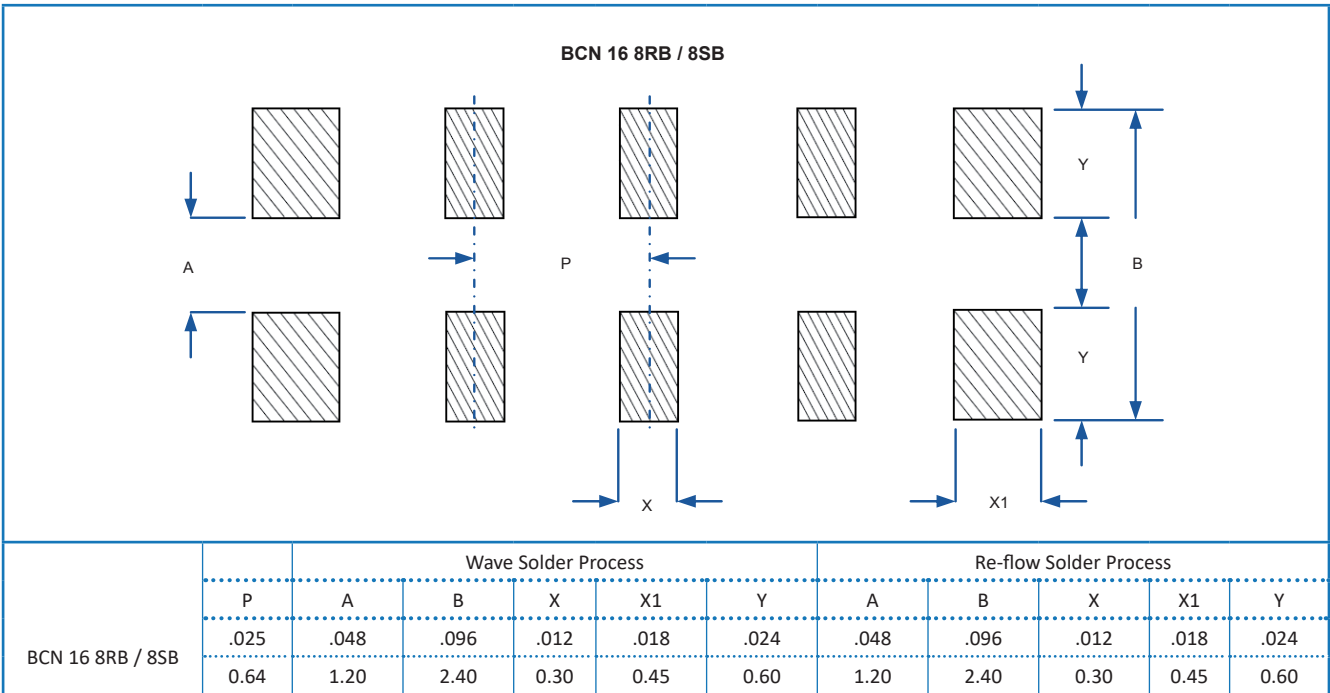
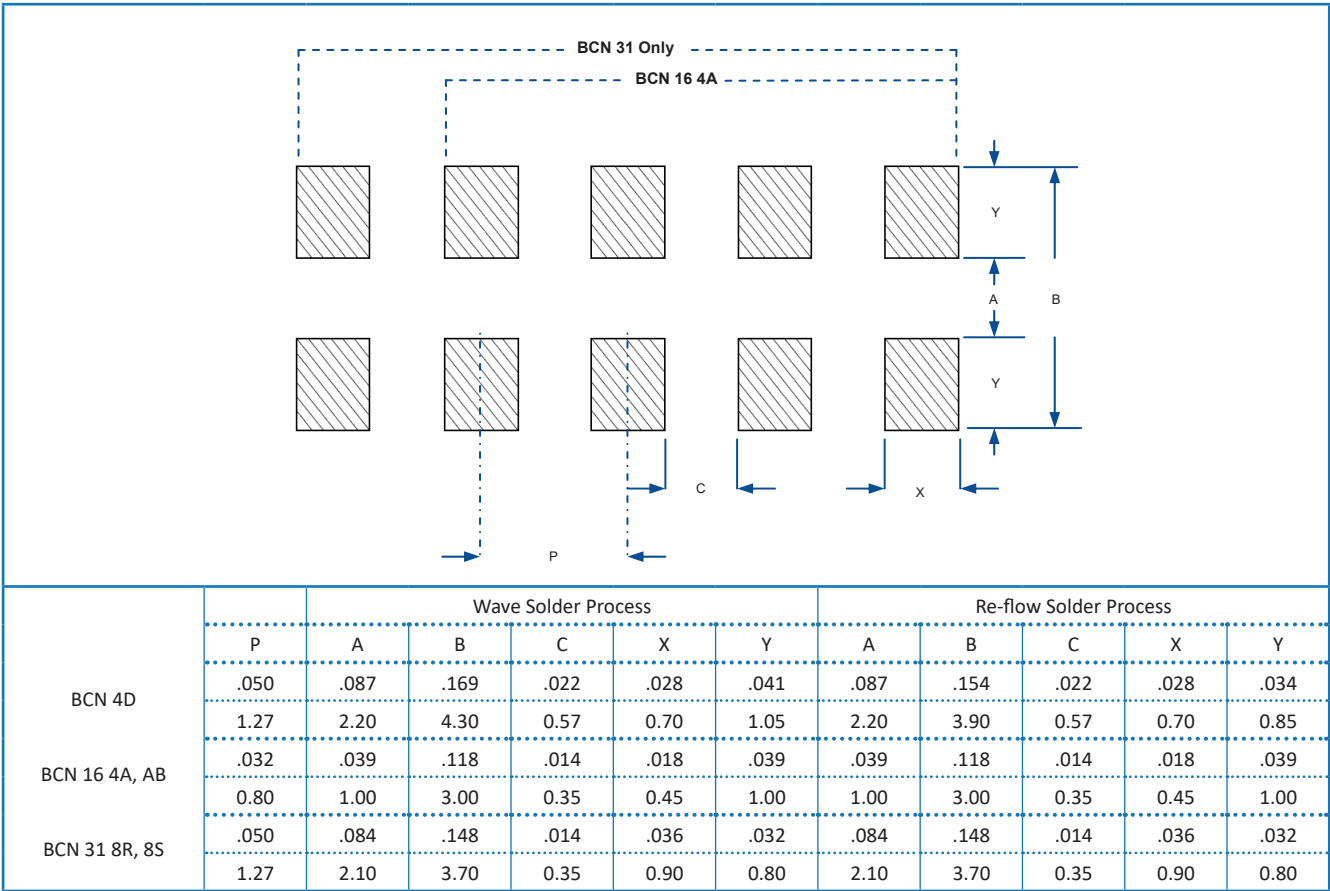
Physical Data (Inch /mm)



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.

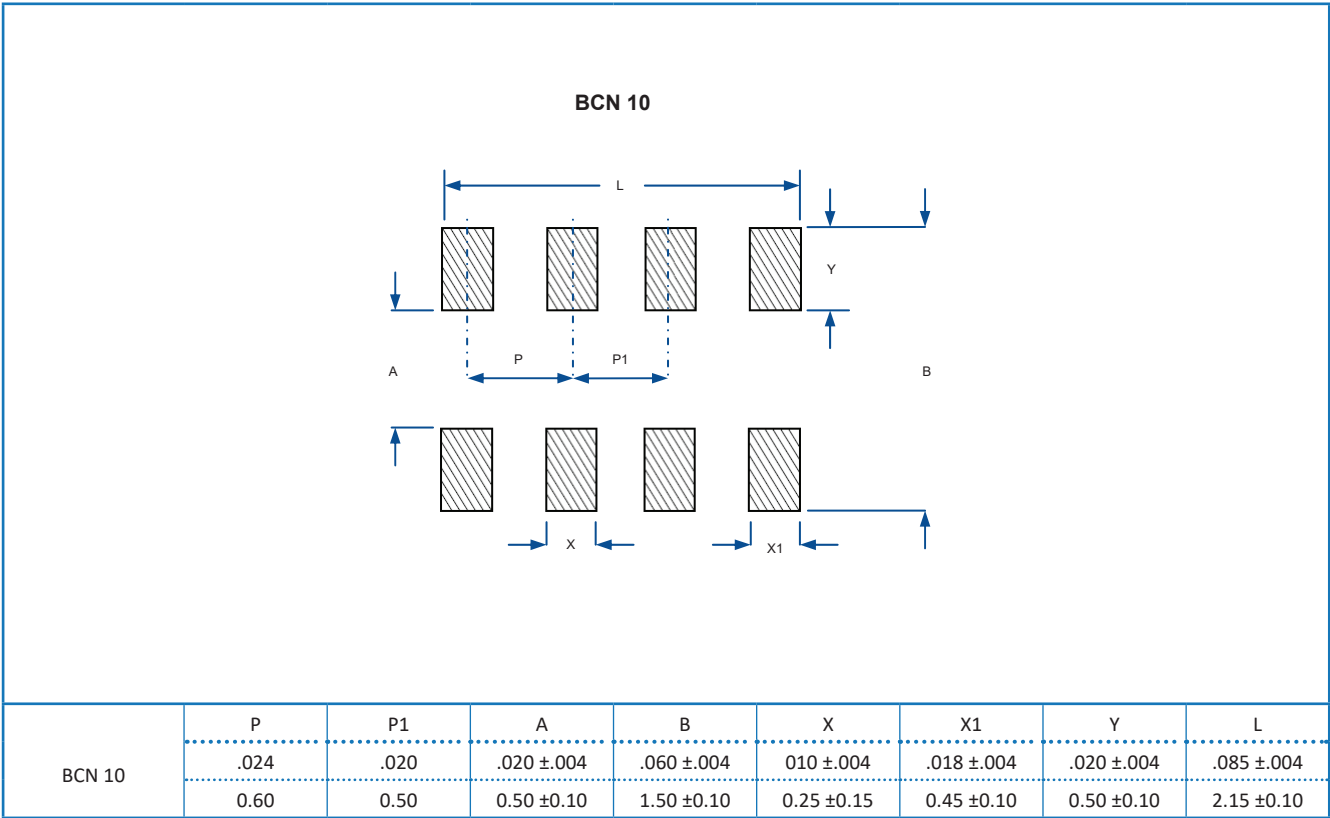
Solder pad layout (Inch / mm)



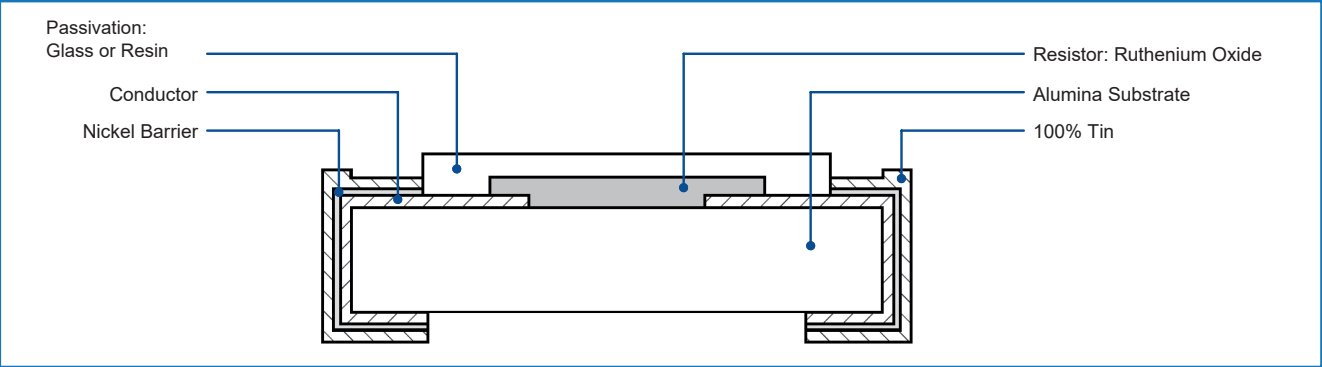
General Note

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)



Construction



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.

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 Number of Resistors	4 Circuit	5 Edge	6 Value	7 Tolerance	8 Packaging	9 Construction
BCN	Blank=3.1mm	4	A=Isolated	Blank=Scalloped	3 digits for E24 at 2% or 5%	F=±1% G=±2%	7=7" reel 13=13" reel	Blank=Standard
	10=1.0mm	8	S=Standard bussed	B=Square	4 digits for uniquely E96 and for all values at 1% JP=Jumper	J=±5% (Blank for jumper)		S=Anti-sulphur
	16=1.6mm		R=Reverse bussed					
	21=2.1mm							
	31=3.1mm							

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	7=10,000/reel, 13=40,000/reel, Paper tape		
B	C	N	1	6	4	A		JP=Jumper, S=Anti-sulphur	7=5000/reel, 13=20,000/reel, Paper tape		
B	C	N	1	6	4	A	B	JP=Jumper, S=Anti-sulphur			
B	C	N	1	6	8	S	B				
B	C	N	1	6	8	R	B	S=Anti-sulphur			
B	C	N			4	D		JP=Jumper, S=Anti-sulphur	7=4000/reel, 13=16,000/reel, Plastic tape		
B	C	N	3	1	8	S	B				
B	C	N	3	1	8	R	B				

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.