

### **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

Туре	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		0603 x 4		1206		
	BCN164AB	1.6					
BCN168	BCN168SB		0603 x 8	Bussed			
	BCN168RB						

# **Electrical Data**

		BCN10	BCN164	BCN168		
Resistor power rating @70°C	mW	63		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 -	100R – 1M0			
Resistance tolerance	%	1, 5	1, 5 1, 2, 5			
TCR	ppm/°C	±200				
Standard values		E24 (for 2% or 5% tolerance), E96 (for 1% tolerance)				
Ambient temperature range	°C					

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.

# **Thick Film Chip Arrays**



### **BCN Series**

### Circuits



# **Environmental Data**

Test	Condition	ΔR% (+0.1Ω)		
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 <sup>1</sup>	1000 hrs @ 50°C, 92% RH, 3-5ppm H <sub>2</sub> S	0.5		

### Note 1 – Anti-sulphur construction only

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# Physical Data (Inch /mm)





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# Solder pad layout (Inch / mm)





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# Solder pad layout (Inch / mm)



## Construction



# Marking

BCN parts may be unmarked or marked with ohmic values. If marked, 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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## Ordering Procedure

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

BCN	1 6	4 A B	1 0 2	J	7 S
1	2	3 4 5	6	7	89

1	2	3	4		5	6	7	8	9		
Series	Width	Number of Resistors	Circu	iit	Edge	Value	Tolerance	Packaging	Construction		
BCN	10=1.0mm	4	A=Isola	ated	Blank=	3 digits for E24	F=±1%	7=7" reel (standard)	Blank=		
	16=1.6mm	8	S=Stand	dard	Scalloped	at 2% or 5%	G=±2%	13=13" reel	Standard		
5 5 5 bi		busse	ed	B=Square	4 digits for	J=±5%		S=Anti-sulphur			
			R=Reve busse	erse ed		uniquely E96 and for all values at 1%	(Blank for jumper)				
JP=Jumper											
Valid Options (1 - 5)				Valid Options (6 & 9)			Packaging Quantity & Tape (8)				
BC	N 1	044	АВ	JP=Jumper, S=Anti-sulphur (5% tolerance & 7" reel only)				7=10,000/reel, 13=	=40,000/reel, Paper	<sup>.</sup> tape	
BC	N 1	64		JP=Jumper, S=Anti-sulphur (1 or 2% tolerance & 7" reel only)							
ВС	N 1	64	АВ	JP=Jumper, S=Anti-sulphur (1 or 5% tolerance only)				7-5000/rool 13-2	0.000/real Paper to	200	
ВС	N 1	685	5 В					7=5000/1881, 15=20,000/1881, Paper tape			
ВС	N 1	68F	R B	S=Anti-sulphur (7" reel only)							

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