

MODEL BCN31

BCN31 Series

- R/2R Ladder Network
- 8 Bit, 2512 Size
- Thick Film
- Leadless Chip Packages

Features

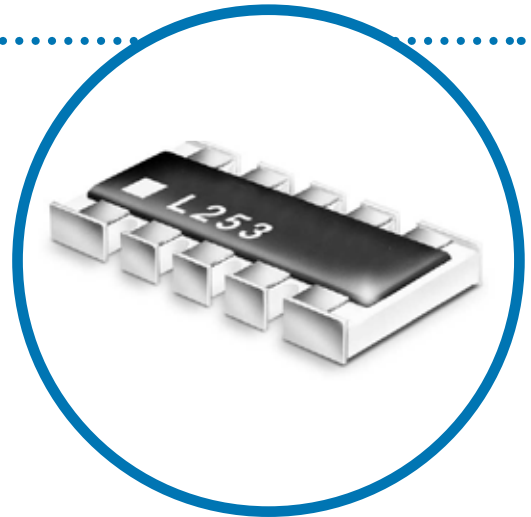
- 8 bit ladder network in a 10 terminal leadless chip package
- Convex termination with square edges and corners
- Topside marking for easy identification
- Solder plated termination with nickel barrier

Benefits

- Saves board space
- Reduces cost
- Single component reliability
- Leadless package offers improved performance

Applications

- Termination network in analog to digital and digital to analog conversion circuits



Electrical ¹

Standard Resistance Range, Ohms	1K to 100K
Standard Resistance Tolerance	±2%
Operating Temperature Range	-40°C to +125°C
Temperature Coefficient of Resistance	±100ppm/°C
Operating Voltage, Maximum	50Vdc or \sqrt{pr}
Insulation Resistance	100 Megohms
Power Rating, Watts at 70°C	25mW per Resistor / 400mW per Package
Ladder Network Accuracy	8 Bits: ±1/2LSB

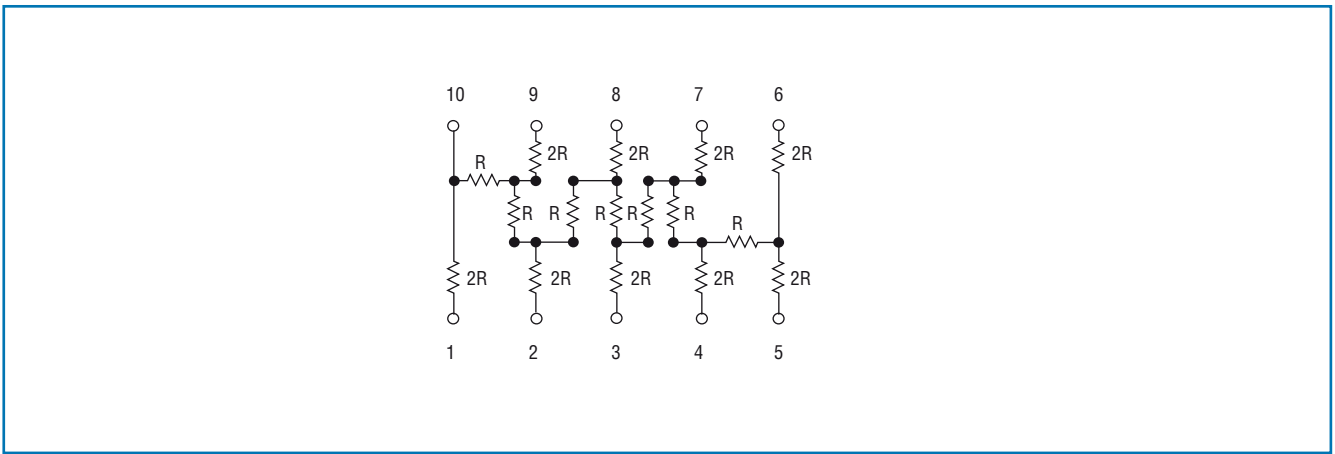
General Note

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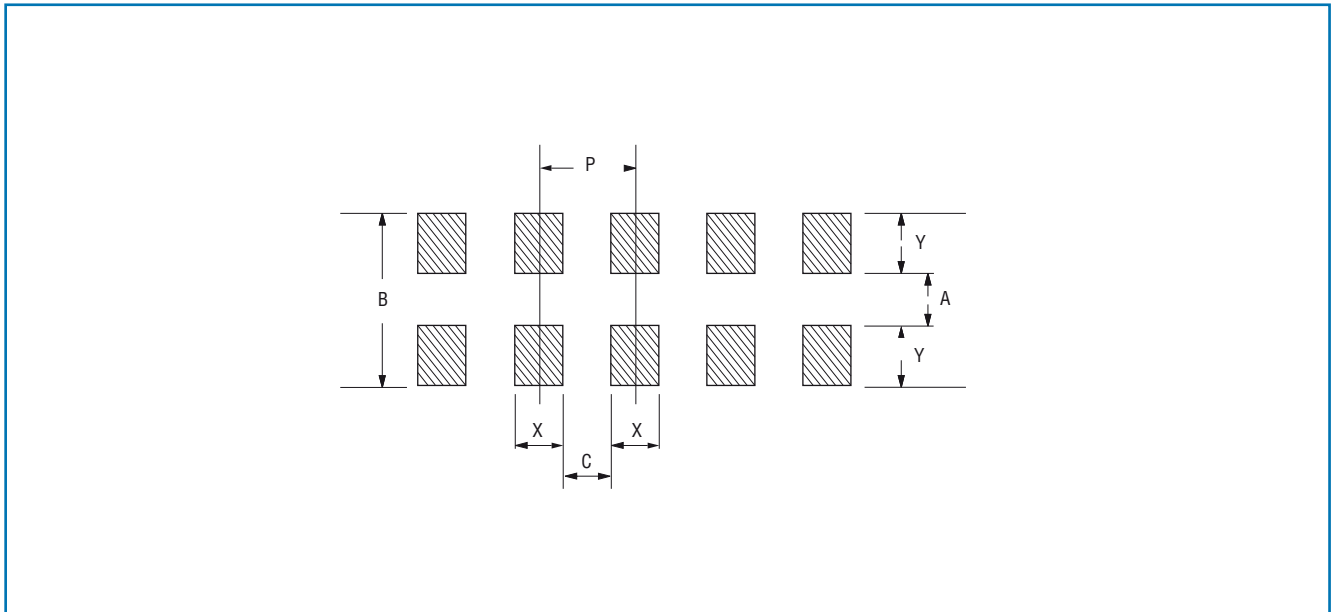
Environmental

Moisture Resistance	1,000 hours at +40°C, 95% R.H. (3.0% ΔR)
High Temperature Operation	1,000 hours at 70°C (3.0% ΔR)
Short Time Overload	2.5 x rated voltage, 5 seconds (2.0% ΔR)
Temperature Cycling	-55°C to +125°C, 5 cycles (1.0% ΔR)
Resistance to Solder Heat	260°C for 10 seconds (1.0% ΔR)
Load Life	1,000 hours at 70°C (3.0% ΔR)

Schematic



Solder Pad Layout (Inch/mm)



P	Wave Solder Process					Re-Flow Solder Process				
	A	B	C	X	Y	A	B	C	X	Y
.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

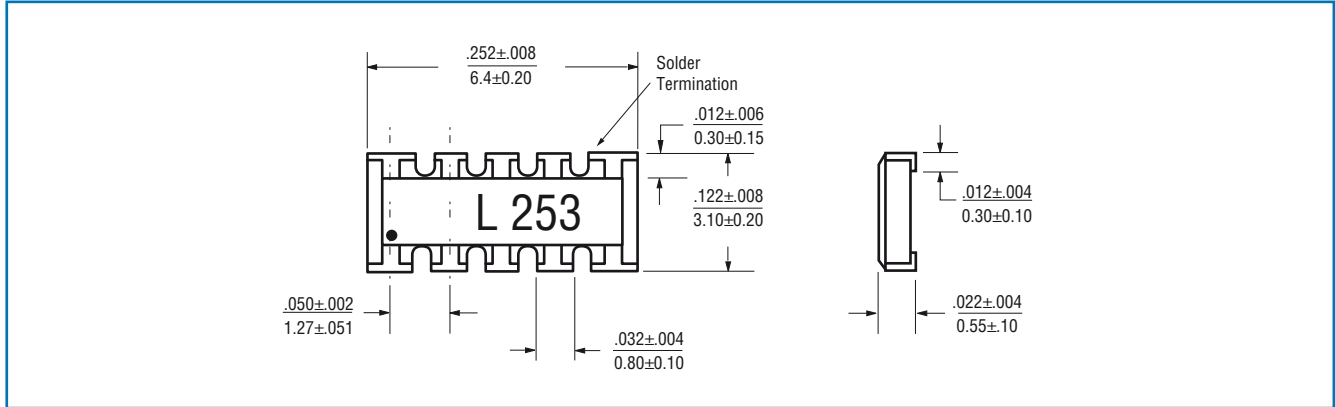
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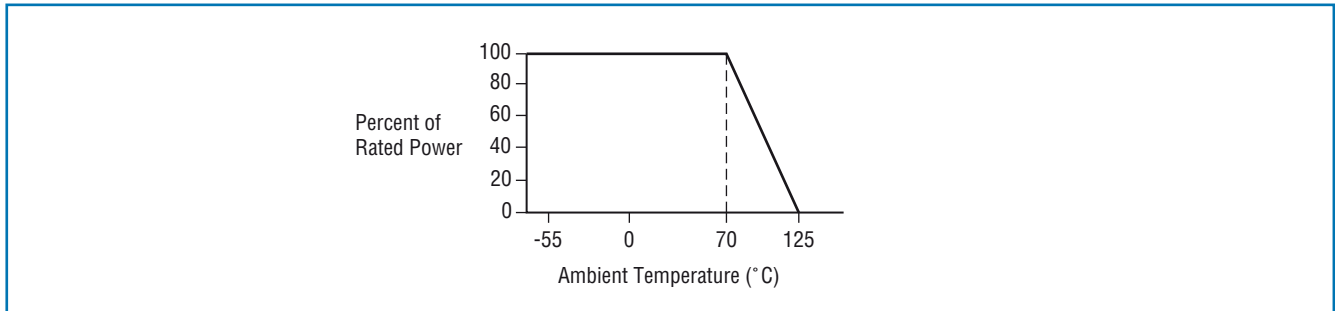


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Outline Dimensions (Inch/mm)



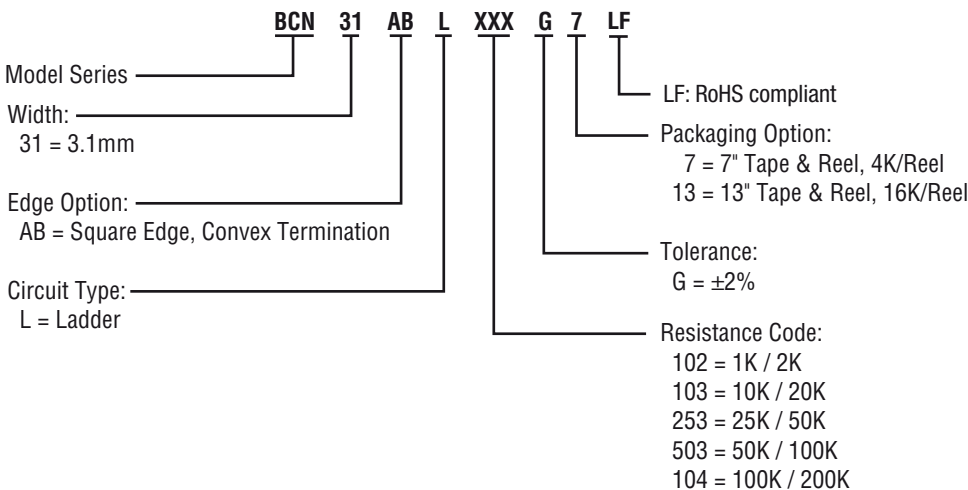
Power Derating Curve



Standard Resistance Values, Ohms

Value (R1/R2)	1K/2K	10K/20K	25K/50K	50K/100K	100K/200K
Code	102	103	253	503	104

Ordering Information



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