

POWrTherm™ BN-LG20Y Series Features

- Power NTC thermistor for Inrush Current Limiting (ICL)
- 20 mm disc diameter with wide resistance range
- Highly stable electrical characteristics
- Flame retardant coating material meets UL 94V-0 requirements
- RoHS* compliant and halogen free**
- Agency recognition: c UL us, VDE

BN-LG20Y Series – Power NTC Thermistors for ICL

Electrical Characteristics

Model	Resistance @ 25 °C (Ω)	Resistance Tolerance[1]	I_{max} (A)	R_{Imax} @ 25 °C (Ω)	Max. Load Capacitance @ 240 VAC (µF)	P_{max} (W)	Dissipation Factor Typical δ (mW/°C)	Thermal Time Constant Typical (sec.)	Operating Temperature Range (°C)
BN-LG20Y0R7Mx	0.7	±20 %	13	0.029	1000	4.9	Approx. 28	Approx. 110	-40 to +200
BN-LG20Y1R0Mx	1.0	±20 %	13	0.037					
BN-LG20Y1R3Mx	1.3	±20 %	10	0.042					
BN-LG20Y1R5Mx	1.5	±20 %	10.5	0.042					
BN-LG20Y2R0Mx	2.0	±20 %	10	0.059					
BN-LG20Y2R2Mx	2.2	±20 %	9.5	0.066					
BN-LG20Y2R5Mx	2.5	±20 %	9.0	0.083					
BN-LG20Y3R0Mx	3.0	±20 %	8.5	0.076					
BN-LG20Y4R0Mx	4.0	±20 %	8.0	0.076					
BN-LG20Y4R7Mx	4.7	±20 %	7.5	0.116					
BN-LG20Y5R0Mx	5.0	±20 %	7.5	0.118					
BN-LG20Y6R0Mx	6.0	±20 %	7.0	0.120					
BN-LG20Y6R8Mx	6.8	±20 %	6.5	0.122					
BN-LG20Y7R0Mx	7.0	±20 %	6.5	0.124					
BN-LG20Y8R0Mx	8.0	±20 %	6.0	0.128					
BN-LG20Y100Mx	10.0	±20 %	6.0	0.135					
BN-LG20Y120Mx	12.0	±20 %	5.0	0.165					
BN-LG20Y130Mx	13.0	±20 %	5.0	0.179					
BN-LG20Y150Mx	15.0	±20 %	4.5	0.255					
BN-LG20Y160Mx	16.0	±20 %	4.5	0.263					
BN-LG20Y180Mx	18.0	±20 %	4.0	0.278					
BN-LG20Y200Mx	20.0	±20 %	4.0	0.308					
BN-LG20Y121Mx	120.0	±20 %	2.0	1.075	1500				

Notes:
"x" denotes lead type. "Y" = Kinked, "S" = Straight.
[1] ±15 % resistance tolerance is available upon request.

WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
**Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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Users should verify actual device performance in their specific applications.
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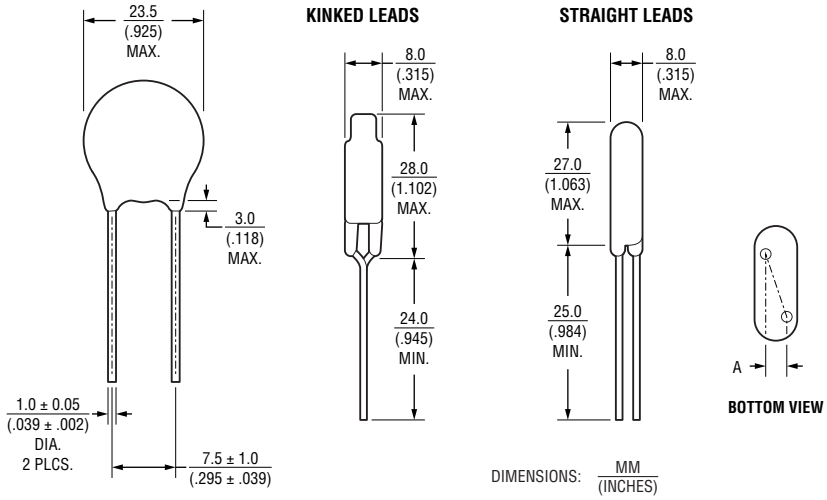
Additional Information

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Product Dimensions



R_{25} Ω	A dim.
0.7	2.4 ± 0.8 (.094 ± .031)
1.0	2.6 ± 0.8 (.102 ± .031)
1.3	
1.5	
2.0	3.1 ± 0.8 (.122 ± .031)
2.5	2.6 ± 0.8 (.102 ± .031)
3.0	
4.0	

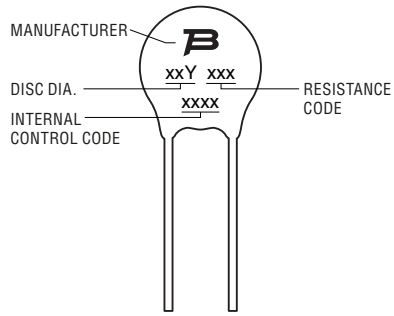
R_{25} Ω	A dim.
4.7	2.7 ± 0.8 (.106 ± .031)
5.0	
6.0	2.6 ± 0.8 (.102 ± .031)
6.8	
7.0	2.7 ± 0.8 (.106 ± .031)
8.0	3.0 ± 0.8 (.118 ± .031)
10	3.2 ± 0.8 (.126 ± .031)
12	3.6 ± 0.8 (.142 ± .031)

R_{25} Ω	A dim.
13	3.6 ± 0.8 (.142 ± .031)
15	
16	
18	
20	2.9 ± 0.8 (.114 ± .031)
120	3.8 ± 0.8 (.150 ± .031)

Agency Recognition

c UL us ..... File number: E307915
..... File number: R50571116
(Test for EN 60539-1:2016)

Typical Part Marking



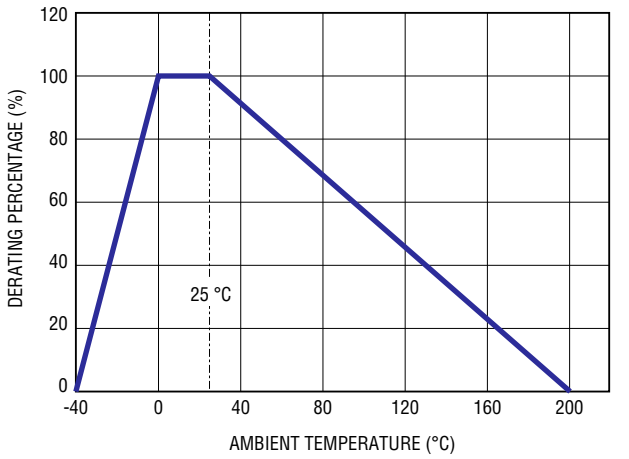
Environmental Characteristics

Storage Conditions
Temperature.....+15 °C to +40 °C
Humidity.....20 to 70 %
Moisture Sensitivity Level.....1

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I_{max} Derating vs. Ambient Temperature Curves



Standard Packaging Quantities

Resistance R_{25}	Packaging Type		
	Bulk pcs./box	Tape & Reel pcs./reel	Ammo Pack pcs./box
0R7 ~ 200	750	500	500
121	450		

How to Order

BN - LG 20Y 2R5 M Y B

POWrTherm™ Product Designator

Series
LG = For Inrush Current Limiting (ICL)

Disc Diameter
20Y = 20 mm

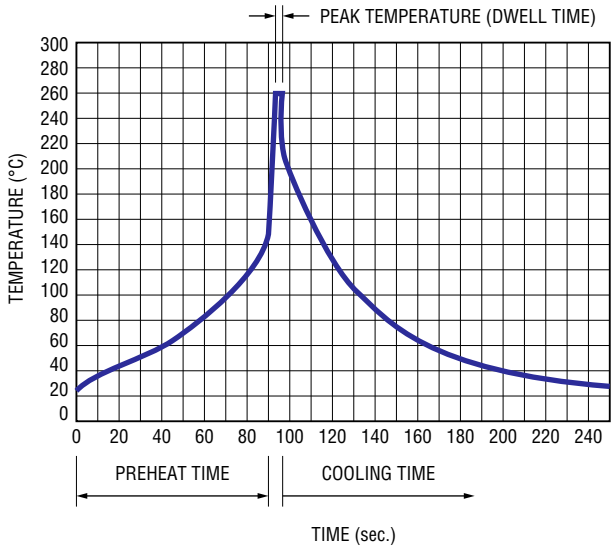
Resistance @ 25 °C
2R5 = 2.5 Ω 100 = 10 Ω 121 = 120 Ω

Tolerance of R_{25}
L = ±15 % M = ±20 %

Lead Type
Y = Kinked S = Straight

Packaging Type
B = Bulk R = Tape & Reel M = Ammo Pack

Solder Reflow Recommendations



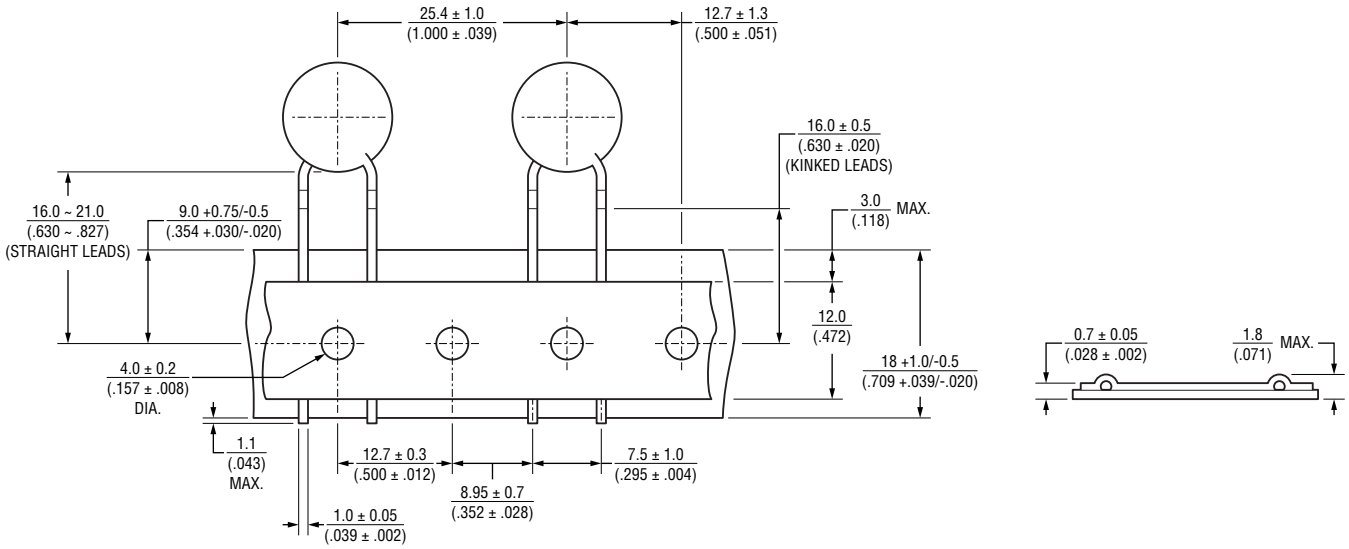
Profile Feature	Pb-Free Assembly
Preheat Temperature Max. (T_{smax}) Time (t_s) from (T_{smin} to T_{smax})	 150 °C 60~90 seconds
Solder Pot Temperature	260 °C max.
Solder Dwell Time	2-3 seconds

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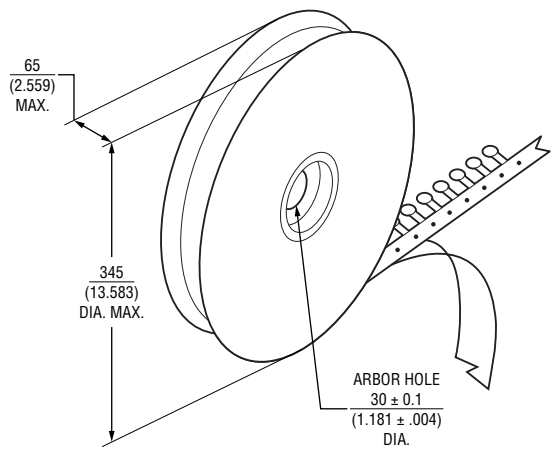
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Packaging Specifications

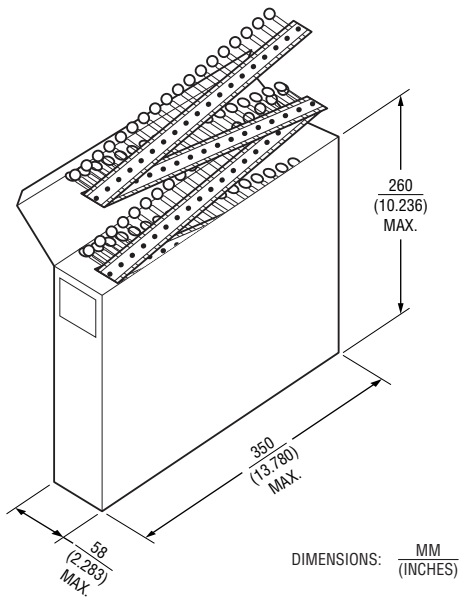
Tape



Reel



Ammo Pack



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