



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:



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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Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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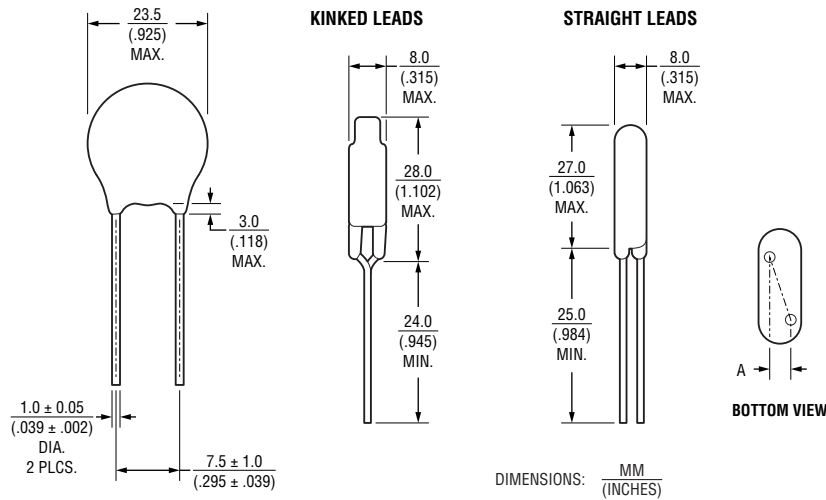


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BN-LG20Y Series – Power NTC Thermistors for ICL

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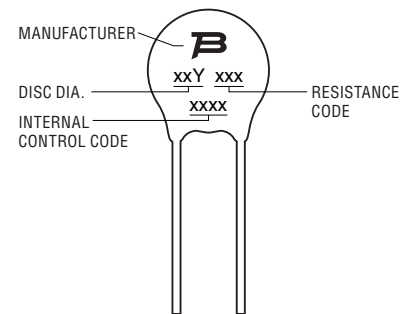
Product Dimensions



Agency Recognition

UL 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

R ₂₅ Ω	A dim.	R ₂₅ Ω	A dim.	R ₂₅ Ω	A dim.
0.7	$\frac{2.4 \pm 0.8}{(.094 \pm .031)}$	4.7	$\frac{2.7 \pm 0.8}{(.106 \pm .031)}$	13	
1.0		5.0		15	$\frac{3.6 \pm 0.8}{(.142 \pm .031)}$
1.3	$\frac{2.6 \pm 0.8}{(.102 \pm .031)}$	6.0	$\frac{2.6 \pm 0.8}{(.102 \pm .031)}$	16	
1.5		6.8		18	
2.0	$\frac{3.1 \pm 0.8}{(.122 \pm .031)}$	7.0	$\frac{2.7 \pm 0.8}{(.106 \pm .031)}$	20	$\frac{2.9 \pm 0.8}{(.114 \pm .031)}$
2.5		8.0	$\frac{3.0 \pm 0.8}{(.118 \pm .031)}$	120	$\frac{3.8 \pm 0.8}{(.150 \pm .031)}$
3.0	$\frac{2.6 \pm 0.8}{(.102 \pm .031)}$	10	$\frac{3.2 \pm 0.8}{(.126 \pm .031)}$		
4.0		12	$\frac{3.6 \pm 0.8}{(.142 \pm .031)}$		

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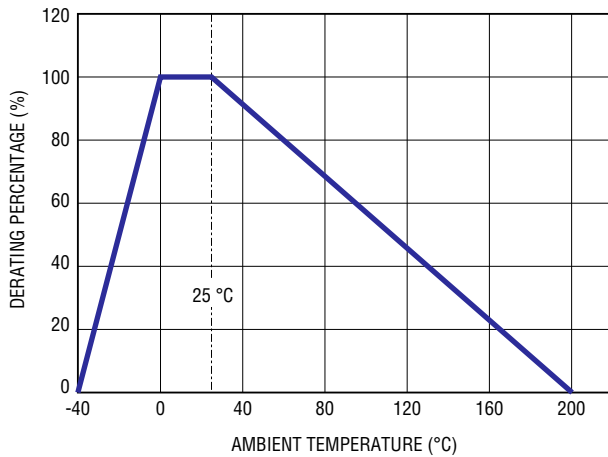
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I_{max} Derating vs. Ambient Temperature Curves



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

POWTherm™ Product Designator _____

Series _____
 LG = For Inrush Current Limiting (ICL)

Disc Diameter _____
 20Y = 20 mm

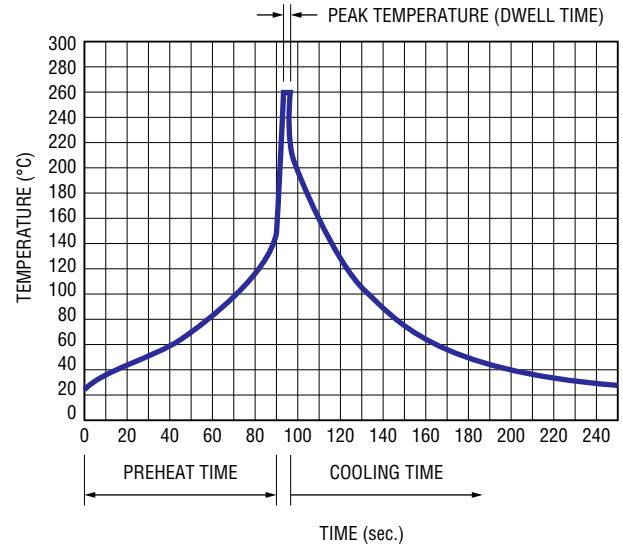
Resistance @ 25 °C _____
 2R5 = 2.5 Ω 100 = 10 Ω 121 = 120 Ω

Tolerance of R_{25} _____
 L = $\pm 15\%$ M = $\pm 20\%$

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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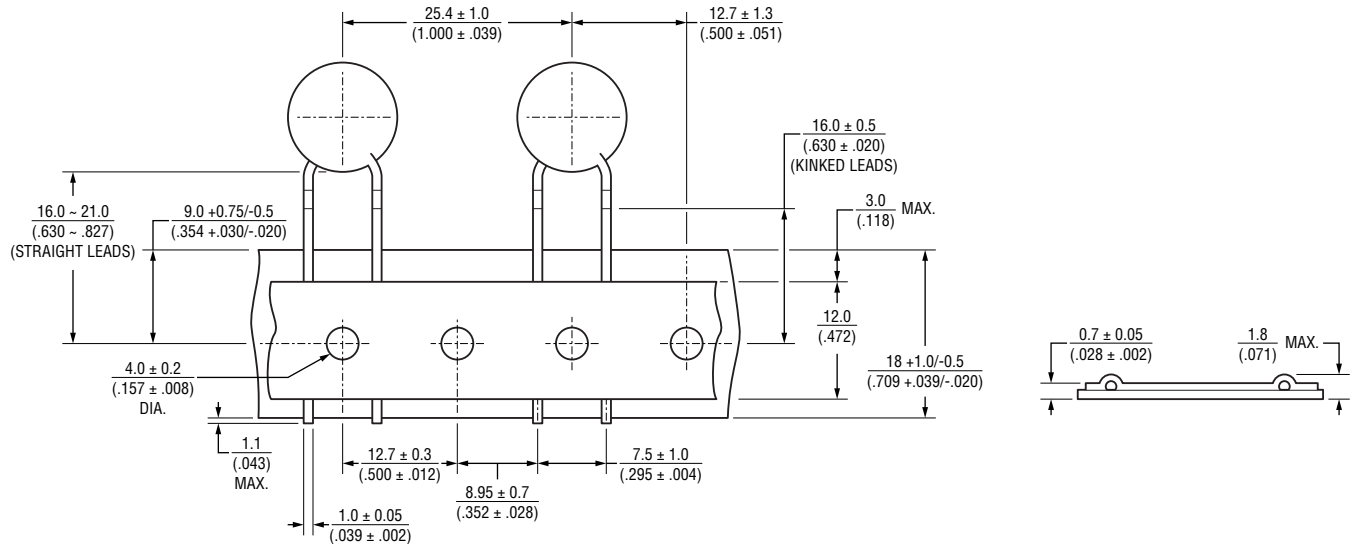
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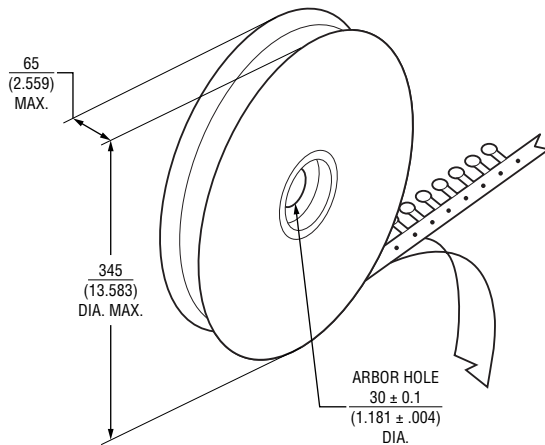
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Packaging Specifications

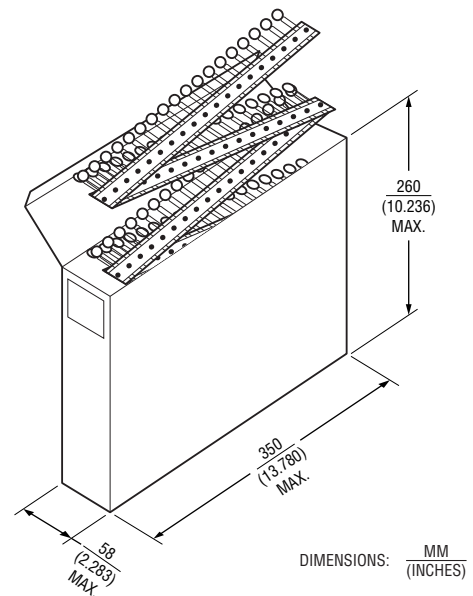
Tape



Reel



Ammo Pack



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REV. 07/23

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