



POWRtherm™ BN-LG25Y Series Features

- Power NTC thermistor for Inrush Current Limiting (ICL)
- 25 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-LG25Y 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} Typical (W)	Dissipation Factor Typical δ (mW/°C)	Thermal Time Constant Typical (sec.)	Operating Temperature Range (°C)
BN-LG25Y1R0Mx	1.0	±20 %	15	0.034	1200	7.0	Approx. 30	Approx. 130	-40 to +200
BN-LG25Y1R5Mx	1.5	±20 %	15	0.035					
BN-LG25Y2R0Mx	2.0	±20 %	14.5	0.036					
BN-LG25Y2R5Mx	2.5	±20 %	14.5	0.037					
BN-LG25Y3R0Mx	3.0	±20 %	14.5	0.038					
BN-LG25Y4R0Mx	4.0	±20 %	14	0.039					
BN-LG25Y4R7Mx	4.7	±20 %	13	0.040					
BN-LG25Y5R0Mx	5.0	±20 %	11	0.066					
BN-LG25Y6R8Mx	6.8	±20 %	10.5	0.070					
BN-LG25Y7R0Mx	7.0	±20 %	10	0.091					
BN-LG25Y8R0Mx	8.0	±20 %	9.0	0.096					
BN-LG25Y100Mx	10.0	±20 %	8.0	0.143					
BN-LG25Y120Mx	12.0	±20 %	7.5	0.165					
BN-LG25Y150Mx	15.0	±20 %	6.5	0.223					
BN-LG25Y180Mx	18.0	±20 %	5.5	0.234					
BN-LG25Y200Mx	20.0	±20 %	5.0	0.245					

Notes:

"x" denotes lead type. "Y" = Kinked, "S" = Straight.

¹ ±15 % resistance tolerance is available upon request.

Additional Information

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Agency Recognition

File number: [E307915](#)
 File number: [R50571116](#)
 (Test for EN 60539-1:2016)

Environmental Characteristics

Storage Conditions

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



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.

"POWRtherm" is a trademark of Bourns, Inc.

Specifications are subject to change without notice.

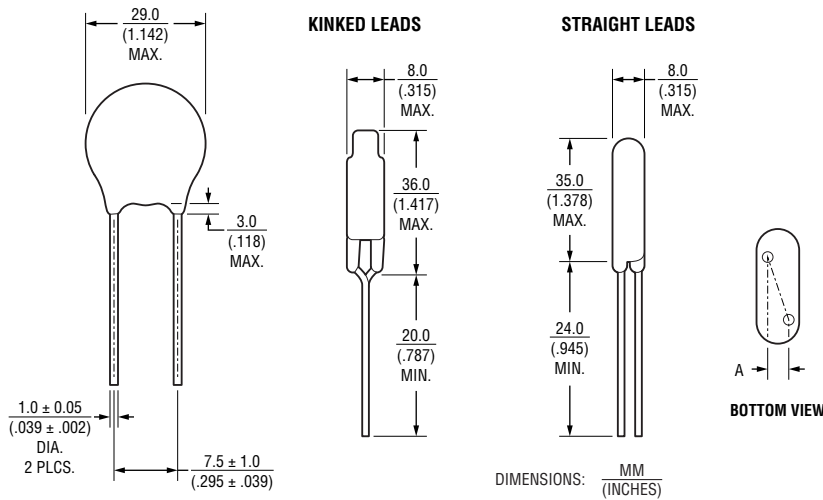
Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

BN-LG25Y Series – Power NTC Thermistors for ICL



Product Dimensions

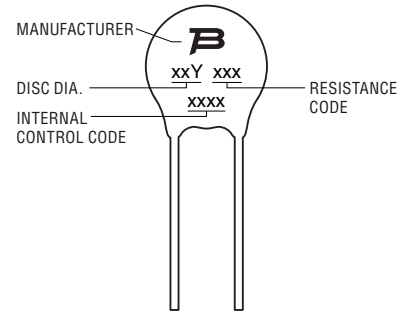


R ₂₅ Ω	A dim.
1.0	$\frac{3.3 \pm 0.8}{(.130 \pm .031)}$
1.3	$\frac{3.9 \pm 0.8}{(.154 \pm .031)}$
1.5	$\frac{2.8 \pm 0.8}{(.110 \pm .031)}$
2.0	$\frac{3.4 \pm 0.8}{(.134 \pm .031)}$
2.5	$\frac{3.7 \pm 0.8}{(.146 \pm .031)}$
3.0	$\frac{2.5 \pm 0.8}{(.098 \pm .031)}$

R ₂₅ Ω	A dim.
4.0	$\frac{2.8 \pm 0.8}{(.110 \pm .031)}$
4.7	$\frac{3.2 \pm 0.8}{(.126 \pm .031)}$
5.0	$\frac{2.8 \pm 0.8}{(.110 \pm .031)}$
6.8	$\frac{3.4 \pm 0.8}{(.134 \pm .031)}$
7.0	$\frac{3.0 \pm 0.8}{(.118 \pm .031)}$
8.0	$\frac{2.8 \pm 0.8}{(.110 \pm .031)}$

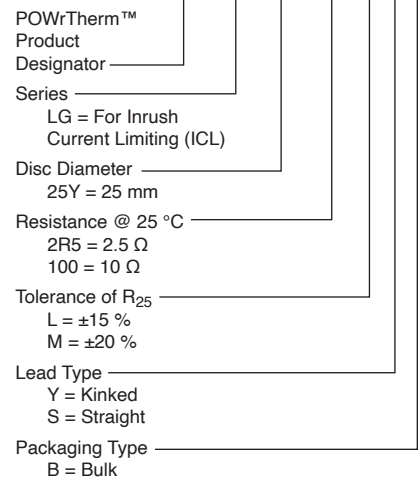
R ₂₅ Ω	A dim.
10	$\frac{3.0 \pm 0.8}{(.118 \pm .031)}$
12	$\frac{2.6 \pm 0.8}{(.102 \pm .031)}$
15	$\frac{2.8 \pm 0.8}{(.110 \pm .031)}$
18	$\frac{3.2 \pm 0.8}{(.126 \pm .031)}$
20	$\frac{3.5 \pm 0.8}{(.138 \pm .031)}$

Typical Part Marking



How to Order

BN - LG 25Y 2R5 M Y B

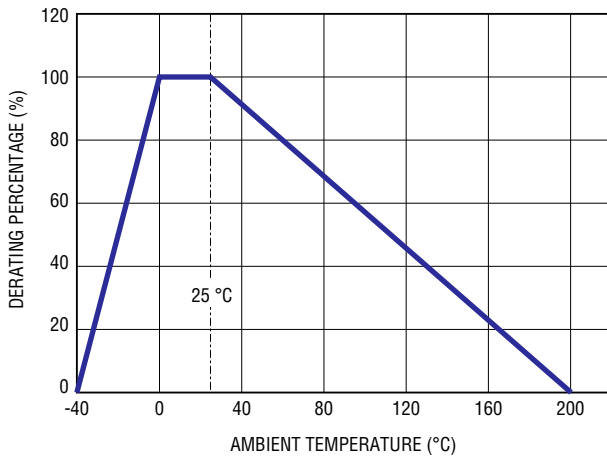


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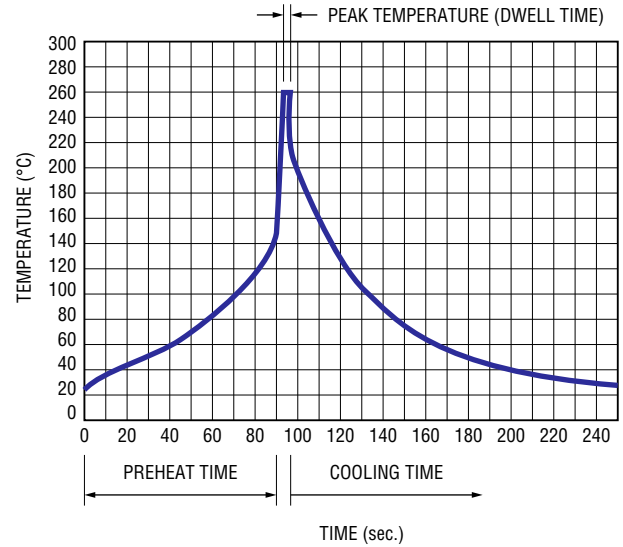
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I_{max} Derating vs. Ambient Temperature Curves



Solder Reflow Recommendations



Standard Packaging Quantities

Bulk	300 pcs./box
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Profile Feature	Pb-Free Assembly
Preheat Temperature Max. (T _{smax})	150 °C
Time (t _s) from (T _{smin} to T _{smax})	60~90 seconds
Solder Pot Temperature	260 °C max.
Solder Dwell Time	2-3 seconds