



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
 Humidity20 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.

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Specifications are subject to change without notice.

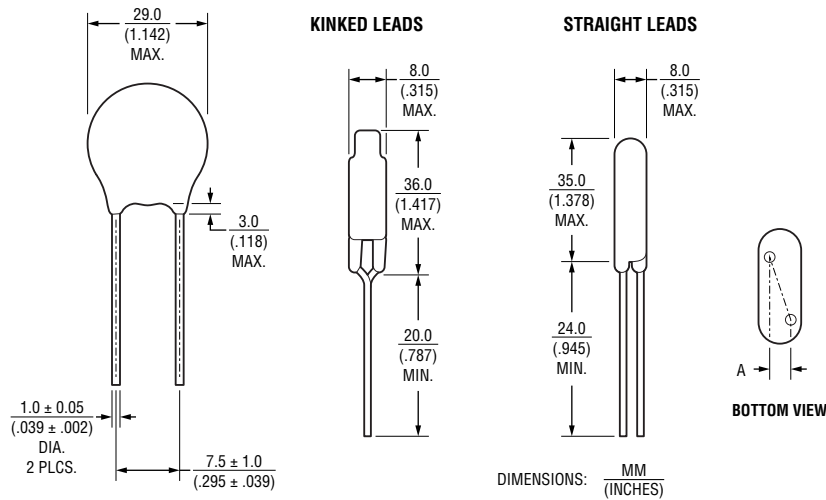
Users should verify actual device performance in their specific applications.

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BN-LG25Y Series – Power NTC Thermistors for ICL

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Product Dimensions

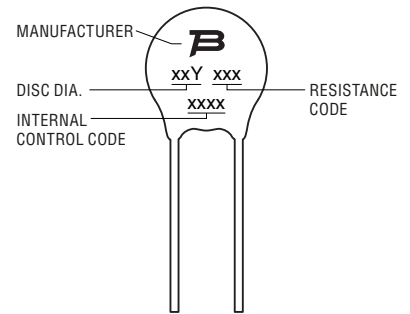


R ₂₅ Ω	A dim.
1.0	$\frac{3.3 \pm 0.8}{(.130 \pm .031)}$
1.3	$\frac{3.9 \pm 0.8}{(.154 \pm .031)}$
1.5	$\frac{2.8 \pm 0.8}{(.110 \pm .031)}$
2.0	$\frac{3.4 \pm 0.8}{(.134 \pm .031)}$
2.5	$\frac{3.7 \pm 0.8}{(.146 \pm .031)}$
3.0	$\frac{2.5 \pm 0.8}{(.098 \pm .031)}$

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

POWTherm™
 Product Designator
 Series
 LG = For Inrush Current Limiting (ICL)
 Disc Diameter
 25Y = 25 mm
 Resistance @ 25 °C
 2R5 = 2.5 Ω
 100 = 10 Ω
 Tolerance of R₂₅
 L = ±15 %
 M = ±20 %
 Lead Type
 Y = Kinked
 S = Straight
 Packaging Type
 B = Bulk

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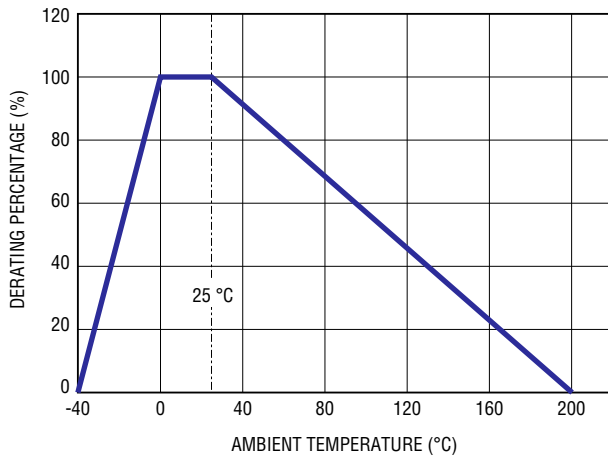
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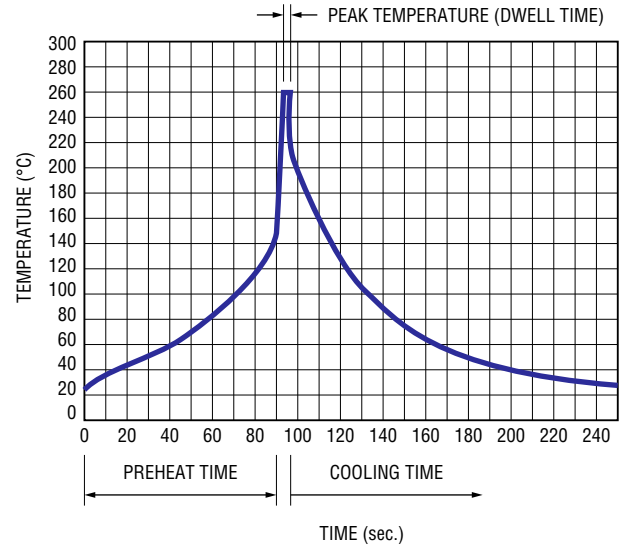
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I_{max} Derating vs. Ambient Temperature Curves



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

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