



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} (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

Click these links for more 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.

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Specifications are subject to change without notice.

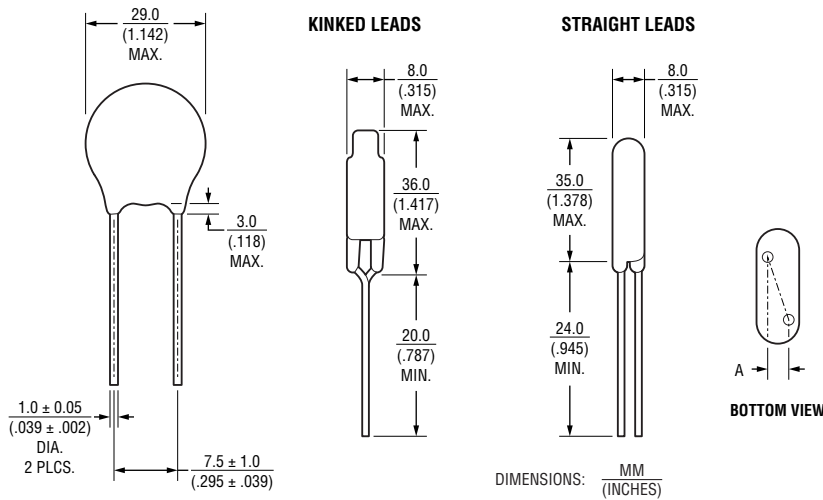
Users should verify actual device performance in their specific applications.

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BN-LG25Y Series – Power NTC Thermistors for ICL



Product Dimensions

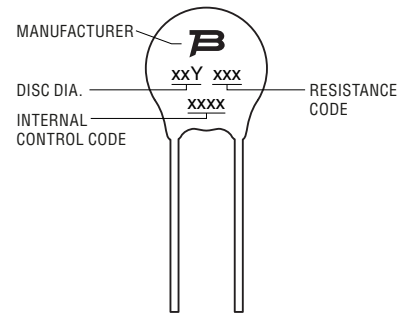


| R ₂₅ Ω | A dim. |
|-------------------|---------------------------------------|
| 1.0 | $\frac{3.3 \pm 0.8}{(.130 \pm .031)}$ |
| 1.3 | $\frac{3.9 \pm 0.8}{(.154 \pm .031)}$ |
| 1.5 | $\frac{2.8 \pm 0.8}{(.110 \pm .031)}$ |
| 2.0 | $\frac{3.4 \pm 0.8}{(.134 \pm .031)}$ |
| 2.5 | $\frac{3.7 \pm 0.8}{(.146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

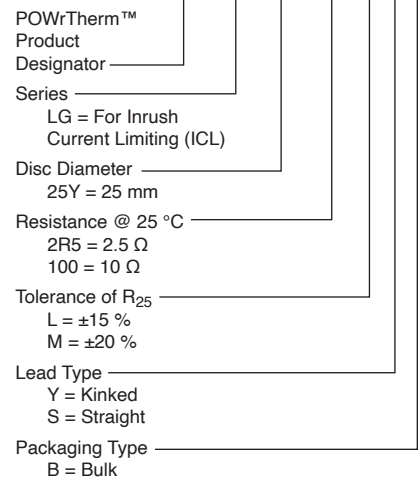
| R ₂₅ Ω | A dim. |
|-------------------|---------------------------------------|
| 10 | $\frac{3.0 \pm 0.8}{(.118 \pm .031)}$ |
| 12 | $\frac{2.6 \pm 0.8}{(.102 \pm .031)}$ |
| 15 | $\frac{2.8 \pm 0.8}{(.110 \pm .031)}$ |
| 18 | $\frac{3.2 \pm 0.8}{(.126 \pm .031)}$ |
| 20 | $\frac{3.5 \pm 0.8}{(.138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

Typical Part Marking



How to Order

BN - LG 25Y 2R5 M Y B

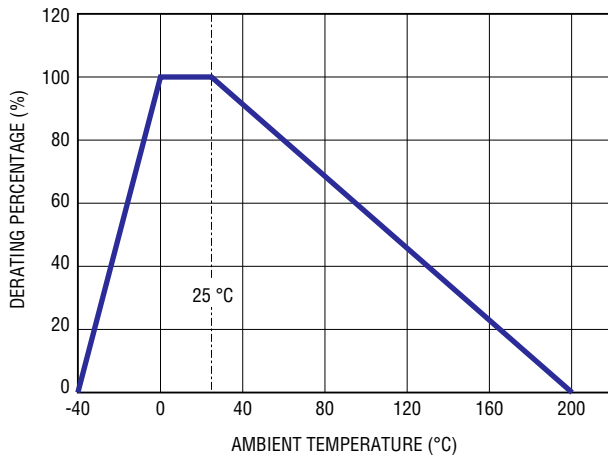


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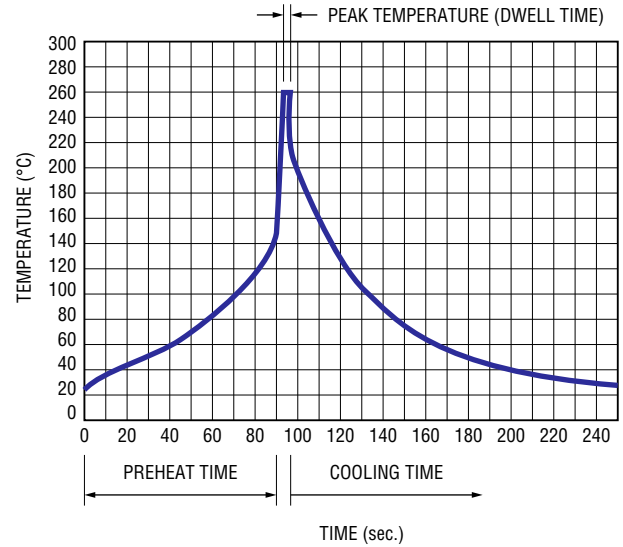
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I_{max} Derating vs. Ambient Temperature Curves



Solder Reflow Recommendations



Standard Packaging Quantities

| | |
|-------------|--------------|
| Bulk | 300 pcs./box |
|-------------|--------------|

| 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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