




POWrTherm™ BN-LG10Y Series Features

- Power NTC thermistor for Inrush Current Limiting (ICL)
- 10 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-LG10Y Series – Power NTC Thermistors for ICL

Electrical Characteristics

| Model | Resistance @ 25 °C (Ω) | Resistance Tolerance ¹ | I _{max} (A) | R _{lmax} @ 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-LG10Y1R0Mx | 1.0 | ±20 % | 5.0 | 0.081 | 150 | 2.3 | Approx. 16 | Approx. 40 | -40 to +170 |
| BN-LG10Y1R3Mx | 1.3 | ±20 % | 5.0 | 0.083 | | | | | |
| BN-LG10Y1R5Mx | 1.5 | ±20 % | 5.0 | 0.096 | | | | | |
| BN-LG10Y2R0Mx | 2.0 | ±20 % | 5.0 | 0.107 | 200 | | | | |
| BN-LG10Y2R5Mx | 2.5 | ±20 % | 5.0 | 0.118 | 220 | | | | |
| BN-LG10Y3R0Mx | 3.0 | ±20 % | 5.0 | 0.127 | 330 | | | | |
| BN-LG10Y4R0Mx | 4.0 | ±20 % | 4.0 | 0.160 | | | | | |
| BN-LG10Y5R0Mx | 5.0 | ±20 % | 4.0 | 0.176 | | | | | |
| BN-LG10Y6R0Mx | 6.0 | ±20 % | 3.0 | 0.234 | | | | | |
| BN-LG10Y6R8Mx | 6.8 | ±20 % | 3.0 | 0.265 | | | | | |
| BN-LG10Y7R0Mx | 7.0 | ±20 % | 3.0 | 0.273 | | | | | |
| BN-LG10Y8R0Mx | 8.0 | ±20 % | 3.0 | 0.287 | | | | | |
| BN-LG10Y100Mx | 10.0 | ±20 % | 3.0 | 0.303 | | | | | |
| BN-LG10Y120Mx | 12.0 | ±20 % | 3.0 | 0.318 | | | | | |
| BN-LG10Y130Mx | 13.0 | ±20 % | 3.0 | 0.345 | | | | | |
| BN-LG10Y150Mx | 15.0 | ±20 % | 2.5 | 0.407 | 150 | | | | |
| BN-LG10Y160Mx | 16.0 | ±20 % | 2.5 | 0.410 | | | | | |
| BN-LG10Y200Mx | 20.0 | ±20 % | 2.0 | 0.576 | | | | | |
| BN-LG10Y220Mx | 22.0 | ±20 % | 2.0 | 0.586 | 330 | | | | |
| BN-LG10Y250Mx | 25.0 | ±20 % | 2.0 | 0.595 | | | | | |
| BN-LG10Y300Mx | 30.0 | ±20 % | 2.0 | 0.714 | | | | | |
| BN-LG10Y470Mx | 47.0 | ±20 % | 2.0 | 0.795 | | | | | |
| BN-LG10Y500Mx | 50.0 | ±20 % | 2.0 | 0.801 | 390 | | | | |
| BN-LG10Y800Mx | 80.0 | ±20 % | 1.0 | 2.217 | 220 | | | | |
| BN-LG10Y101Mx | 100.0 | ±20 % | 1.0 | 2.275 | 390 | | | | |
| BN-LG10Y121Mx | 120.0 | ±20 % | 1.0 | 2.693 | | | | | |

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.

"POWrTherm" is a trademark of Bourns, Inc.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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Additional Information

Click these links for more information:

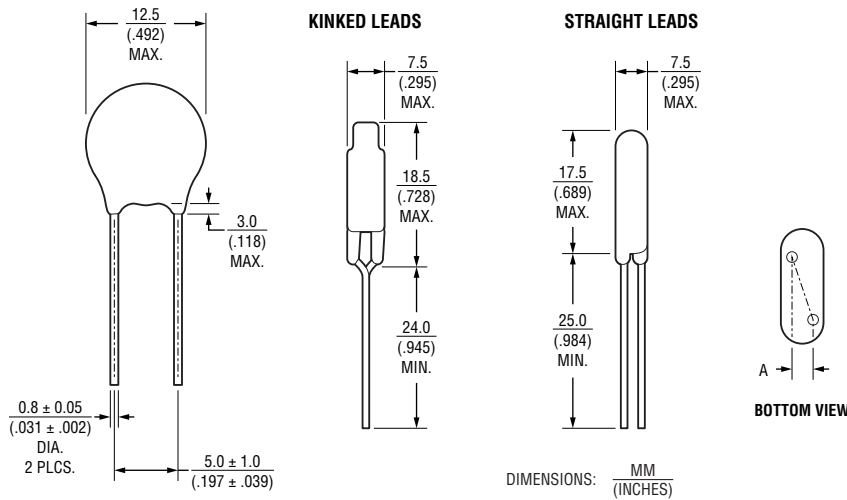


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BN-LG10Y Series – Power NTC Thermistors for ICL



Product Dimensions



| R ₂₅ Ω | A dim. |
|-------------------|---------------------------------------|
| 1.0 | $\frac{1.6 \pm 0.8}{(.063 \pm .031)}$ |
| 1.3 | $\frac{1.9 \pm 0.8}{(.075 \pm .031)}$ |
| 1.5 | |
| 2.0 | |
| 2.5 | |
| 3.0 | |
| 4.0 | $\frac{2.2 \pm 0.8}{(.087 \pm .031)}$ |
| 5.0 | |
| 6.0 | |

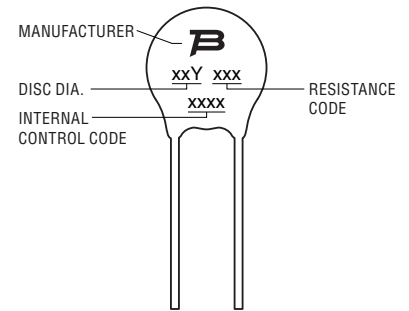
| R ₂₅ Ω | A dim. |
|-------------------|---------------------------------------|
| 6.8 | $\frac{2.4 \pm 0.8}{(.094 \pm .031)}$ |
| 7.0 | $\frac{2.2 \pm 0.8}{(.087 \pm .031)}$ |
| 8.0 | |
| 10 | $\frac{2.0 \pm 0.8}{(.079 \pm .031)}$ |
| 12 | |
| 13 | |
| 15 | $\frac{2.2 \pm 0.8}{(.087 \pm .031)}$ |
| 16 | |
| 20 | |

| R ₂₅ Ω | A dim. |
|-------------------|---------------------------------------|
| 22 | $\frac{2.2 \pm 0.8}{(.087 \pm .031)}$ |
| 25 | $\frac{2.5 \pm 0.8}{(.098 \pm .031)}$ |
| 30 | |
| 47 | $\frac{2.0 \pm 0.8}{(.079 \pm .031)}$ |
| 50 | |
| 80 | $\frac{2.6 \pm 0.8}{(.102 \pm .031)}$ |
| 100 | $\frac{3.1 \pm 0.8}{(.122 \pm .031)}$ |
| 120 | $\frac{1.5 \pm 0.8}{(.059 \pm .031)}$ |

Agency Recognition

UL US File number: [E307915](#)

Typical Part Marking



Environmental Characteristics

Storage Conditions

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

Standard Packaging Quantities

| | |
|-------------|-----------------|
| Bulk | 2,500 pcs./box |
| Tape & Reel | 1,500 pcs./reel |
| Ammo Pack | 1,000 pcs./box |

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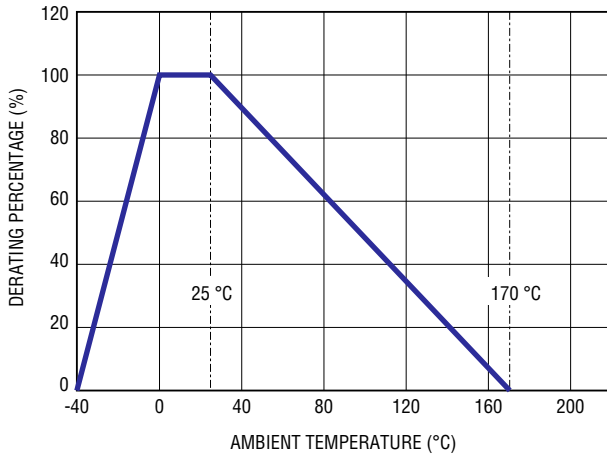
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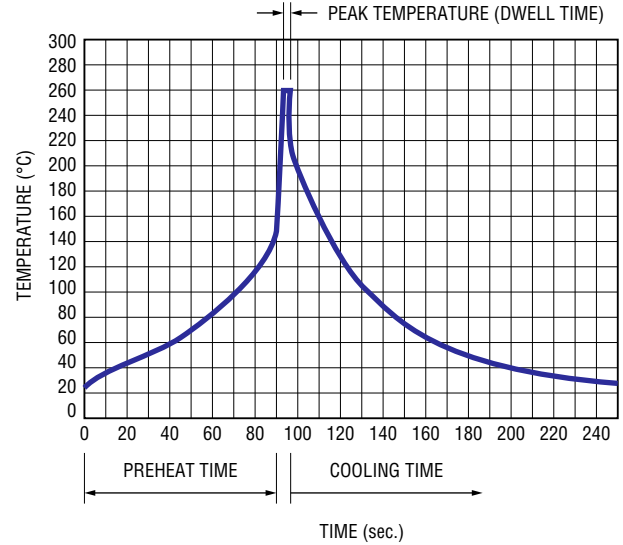
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I_{max} Derating vs. Ambient Temperature Curves



Solder Reflow Recommendations



How to Order

BN - LG 10Y 2R5 M Y B

POWTherm™ Product Designator _____

Series _____
 LG = For Inrush Current Limiting (ICL)

Disc Diameter _____
 10Y = 10 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 R = Tape & Reel M = Ammo Pack

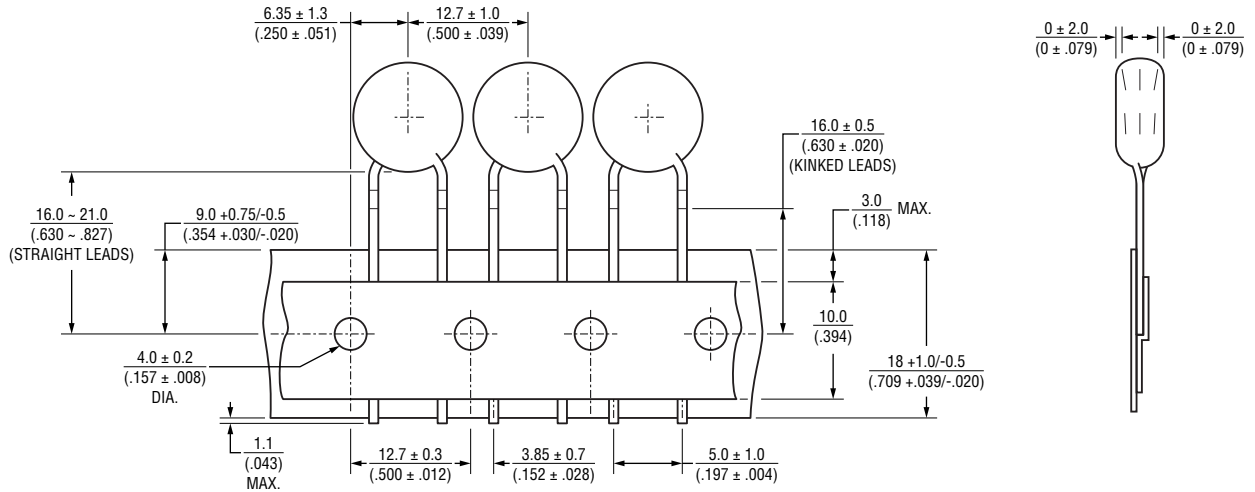
| Profile Feature | Pb-Free Assembly |
|---|------------------|
| Preheat Temperature Max. (T _{smax}) | 150 °C |
| Time (t _s) from (T _{smin} to T _{smax}) | 60~90 seconds |
| Solder Pot Temperature | 260 °C max. |
| Solder Dwell Time | 2-3 seconds |

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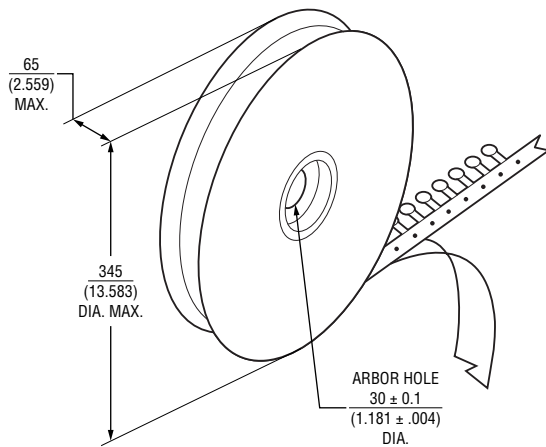
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Packaging Specifications

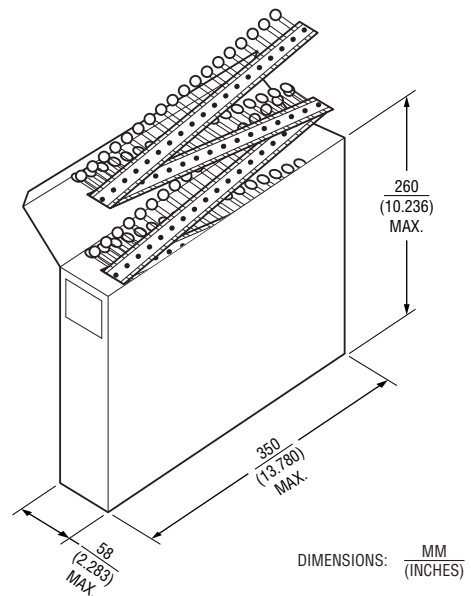
Tape



Reel



Ammo Pack



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