



POWrTherm™ BN-LG05Y Series Features

- Power NTC thermistor for Inrush Current Limiting (ICL)
- 5 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: cULus



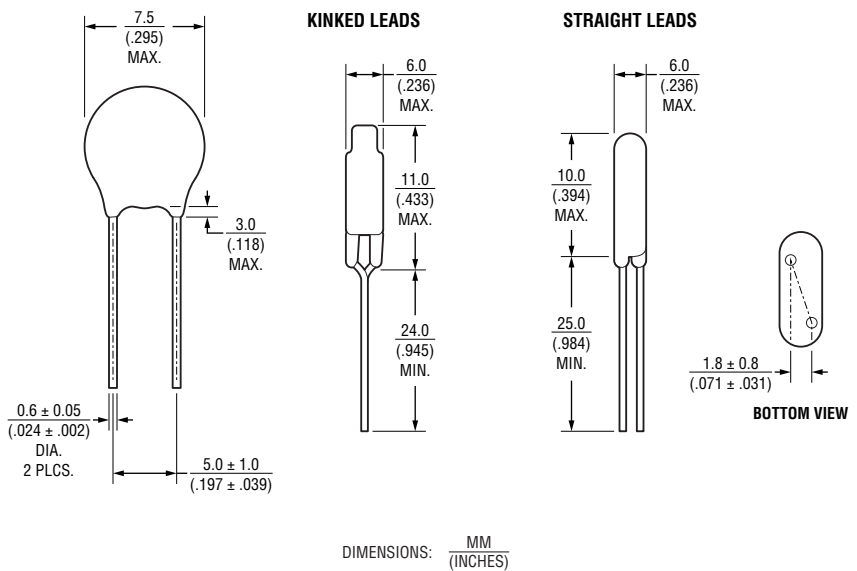
BN-LG05Y Series – Power NTC Thermistors for ICL

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-LG05Y3R0Mx | 3.0 | ±20 % | 3.0 | 0.220 | 100 | 1.6 | Approx. 13 | Approx. 25 | -40 to +150 |
| BN-LG05Y4R0Mx | 4.0 | ±20 % | 2.0 | 0.350 | | | | | |
| BN-LG05Y5R0Mx | 5.0 | ±20 % | 2.0 | 0.417 | | | | | |
| BN-LG05Y7R0Mx | 7.0 | ±20 % | 1.2 | 0.554 | | | | | |
| BN-LG05Y8R0Mx | 8.0 | ±20 % | 1.0 | 0.911 | 68 | | | | |
| BN-LG05Y100Mx | 10.0 | ±20 % | 1.0 | 0.975 | 100 | | | | |
| BN-LG05Y120Mx | 12.0 | ±20 % | 1.0 | 1.188 | 68 | | | | |
| BN-LG05Y200Mx | 20.0 | ±20 % | 0.3 | 5.600 | 100 | | | | |

Notes:
 "x" denotes lead type. "Y" = Kinked, "S" = Straight.
¹ ±15 % resistance tolerance is available upon request.

Product Dimensions



Additional Information

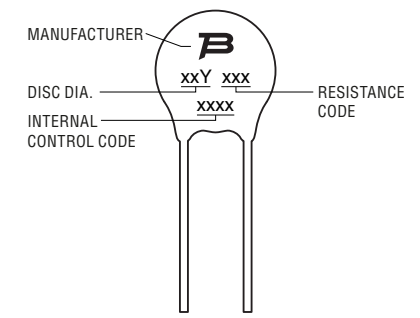
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Agency Recognition

File number: [E307915](#)

Typical Part Marking



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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BN-LG05Y Series – Power NTC Thermistors for ICL



Environmental Characteristics

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

Standard Packaging Quantities

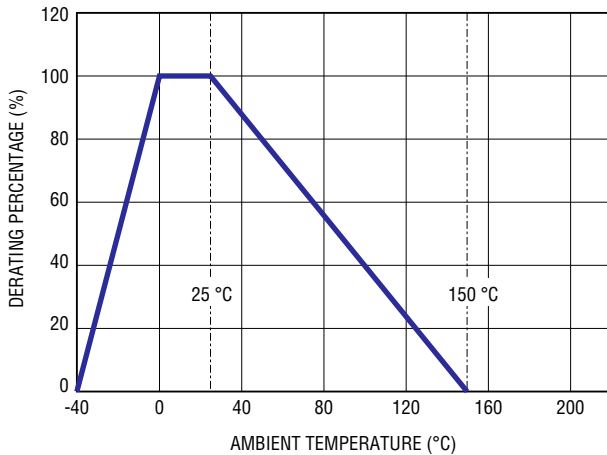
| | |
|------------------------|-----------------|
| Bulk | 5,000 pcs./box |
| Tape & Reel | 1,500 pcs./reel |
| Ammo Pack | 1,000 pcs./box |

How to Order

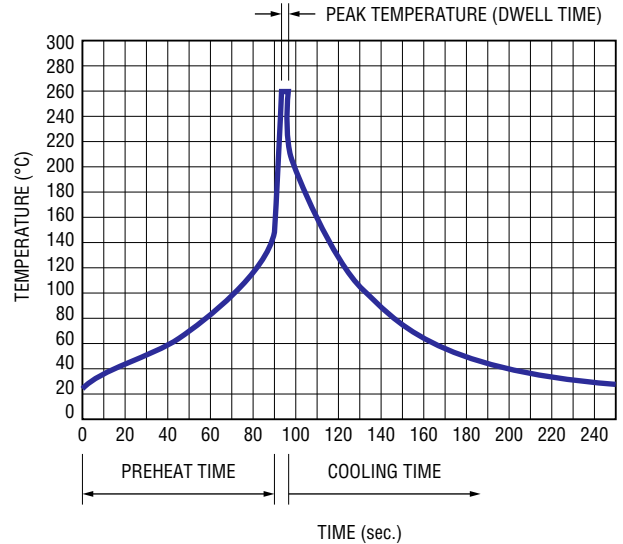
BN - LG 05Y 2R5 M Y B

POWRTherm™ Product Designator _____
 Series _____
 LG = For Inrush Current Limiting (ICL)
 Disc Diameter _____
 05Y = 5 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

I_{max} Derating vs. Ambient Temperature Curves



Solder Reflow Recommendations



| 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 |

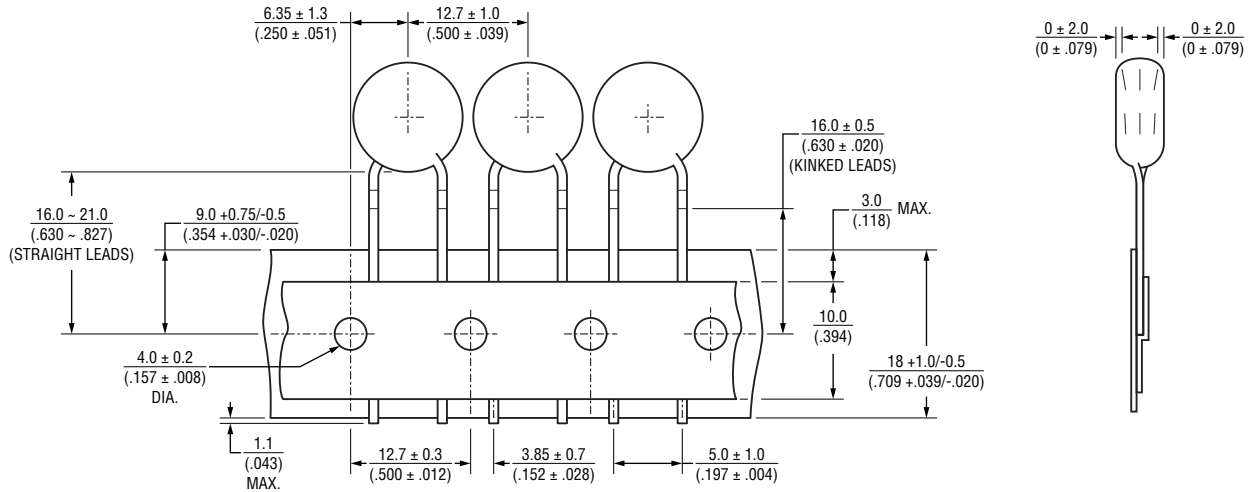
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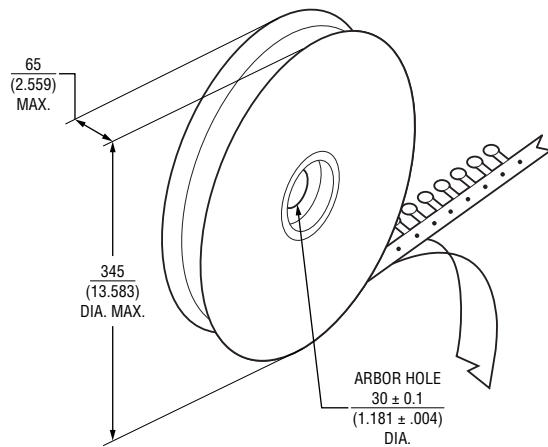
BOURNS®

Packaging Specifications

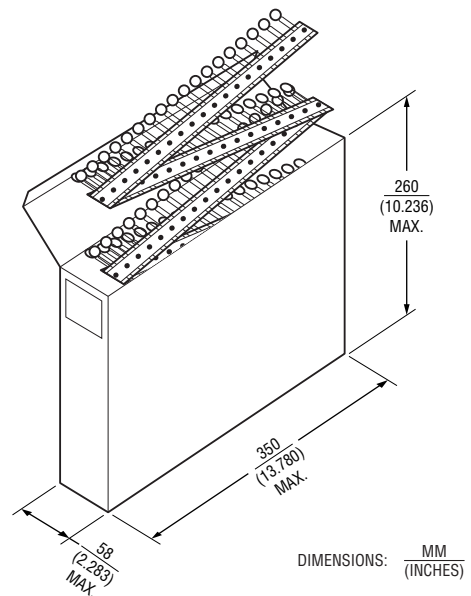
Tape



Reel



Ammo Pack



BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

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