

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: c UL us

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:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Agency Recognition

c UL us ..... File number: E307915
..... File number: R50571116
(Test for EN 60539-1:2016)

Environmental Characteristics

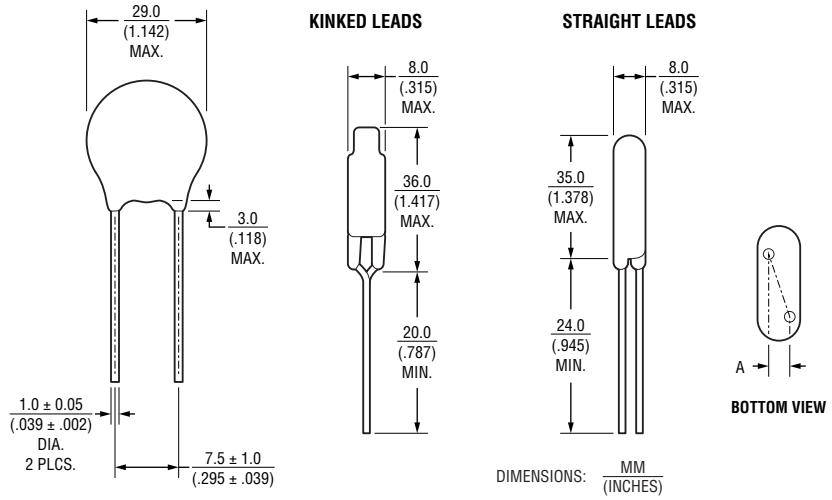
Storage Conditions
Temperature.....+15 °C to +40 °C
Humidity.....20 to 70 %
Moisture Sensitivity Level.....1

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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Product Dimensions

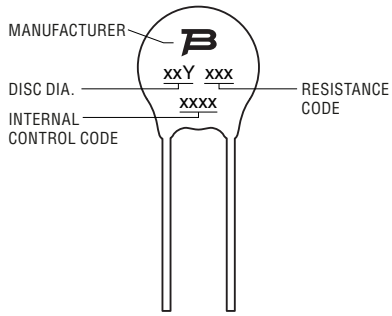


R_{25} Ω	A dim.
1.0	3.3 ± 0.8 (.130 ± .031)
1.3	3.9 ± 0.8 (.154 ± .031)
1.5	2.8 ± 0.8 (.110 ± .031)
2.0	3.4 ± 0.8 (.134 ± .031)
2.5	3.7 ± 0.8 (.146 ± .031)
3.0	2.5 ± 0.8 (.098 ± .031)

R_{25} Ω	A dim.
4.0	2.8 ± 0.8 (.110 ± .031)
4.7	3.2 ± 0.8 (.126 ± .031)
5.0	2.8 ± 0.8 (.110 ± .031)
6.8	3.4 ± 0.8 (.134 ± .031)
7.0	3.0 ± 0.8 (.118 ± .031)
8.0	2.8 ± 0.8 (.110 ± .031)

R_{25} Ω	A dim.
10	3.0 ± 0.8 (.118 ± .031)
12	2.6 ± 0.8 (.102 ± .031)
15	2.8 ± 0.8 (.110 ± .031)
18	3.2 ± 0.8 (.126 ± .031)
20	3.5 ± 0.8 (.138 ± .031)

Typical Part Marking



How to Order

BN - LG 25Y 2R5 M Y B

POWrTherm™ 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 R_{25}
- L = ±15 %
- M = ±20 %

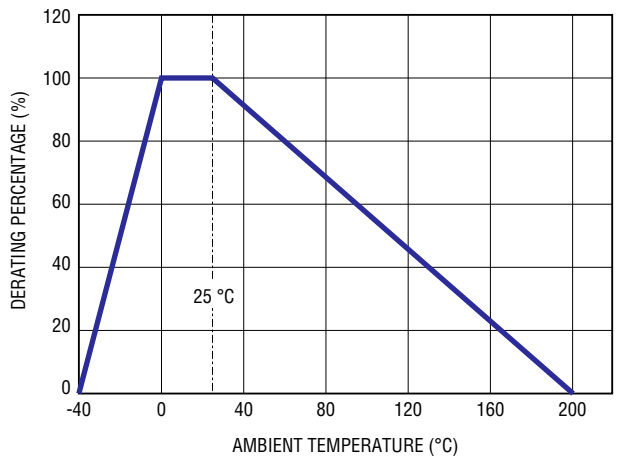
Lead Type
- Y = Kinked
- S = Straight

Packaging Type
- B = Bulk

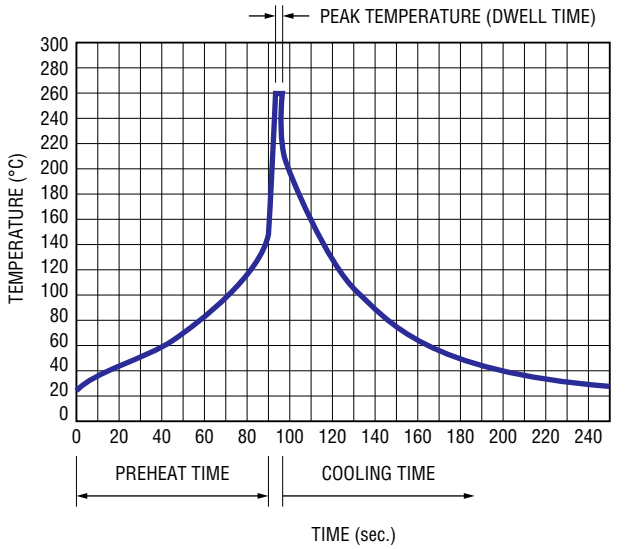
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I_{max} Derating vs. Ambient Temperature Curves



Solder Reflow Recommendations



Standard Packaging Quantities

Bulk	300 pcs./box

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

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