



## 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 <sup>1</sup>	I <sub>max</sub> (A)	R <sub>imax</sub> @ 25 °C (Ω)	Max. Load Capacitance @ 240 VAC (μF)	P <sub>max</sub> 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.

<sup>1</sup> ±15 % resistance tolerance is available upon request.

### Additional Information

Click these links for more information:



[PRODUCT SELECTOR](#) [TECHNICAL LIBRARY](#) [INVENTORY](#) [SAMPLES](#) [CONTACT](#)

### 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](http://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.

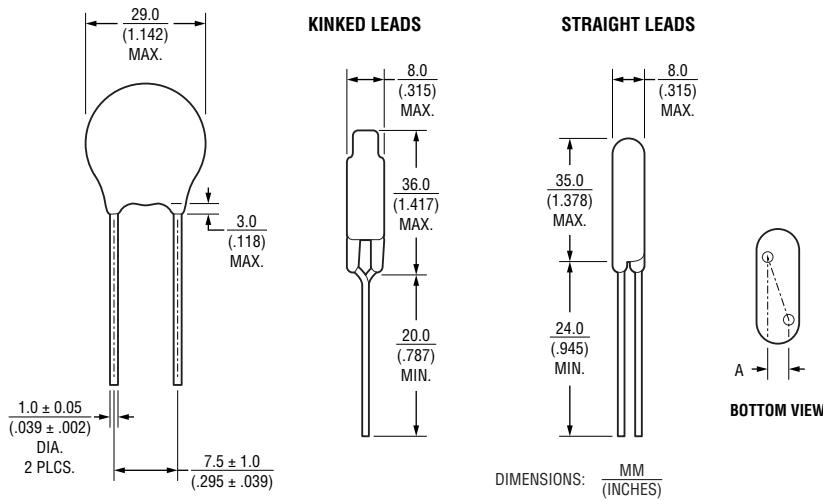
Users should verify actual device performance in their specific applications.

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# BN-LG25Y Series – Power NTC Thermistors for ICL



## Product Dimensions

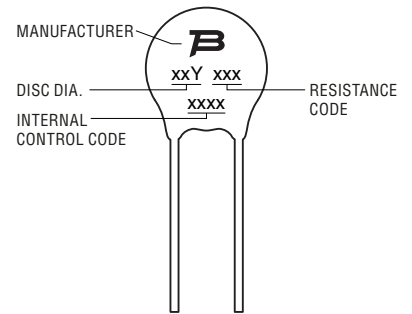


R <sub>25</sub> Ω	A dim.
1.0	$\frac{3.3 \pm 0.8}{(.130 \pm .031)}$
1.3	$\frac{3.9 \pm 0.8}{(.154 \pm .031)}$
1.5	$\frac{2.8 \pm 0.8}{(.110 \pm .031)}$
2.0	$\frac{3.4 \pm 0.8}{(.134 \pm .031)}$
2.5	$\frac{3.7 \pm 0.8}{(.146 \pm .031)}$
3.0	$\frac{2.5 \pm 0.8}{(.098 \pm .031)}$

R <sub>25</sub> 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	$\frac{2.8 \pm 0.8}{(.110 \pm .031)}$

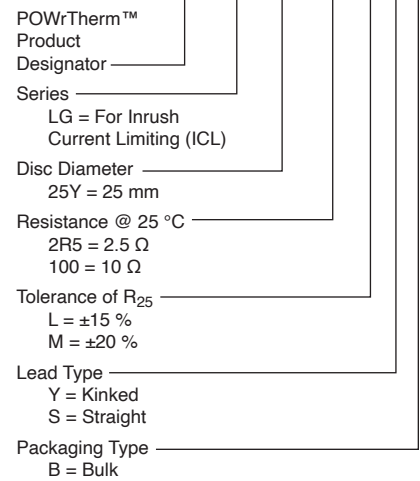
R <sub>25</sub> Ω	A dim.
10	$\frac{3.0 \pm 0.8}{(.118 \pm .031)}$
12	$\frac{2.6 \pm 0.8}{(.102 \pm .031)}$
15	$\frac{2.8 \pm 0.8}{(.110 \pm .031)}$
18	$\frac{3.2 \pm 0.8}{(.126 \pm .031)}$
20	$\frac{3.5 \pm 0.8}{(.138 \pm .031)}$

## Typical Part Marking



## How to Order

**BN - LG 25Y 2R5 M Y B**

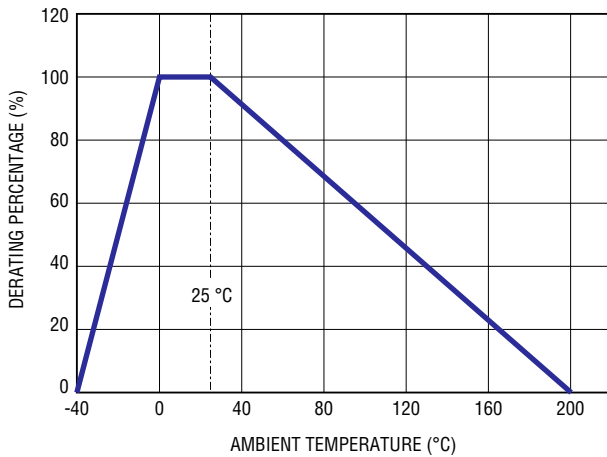


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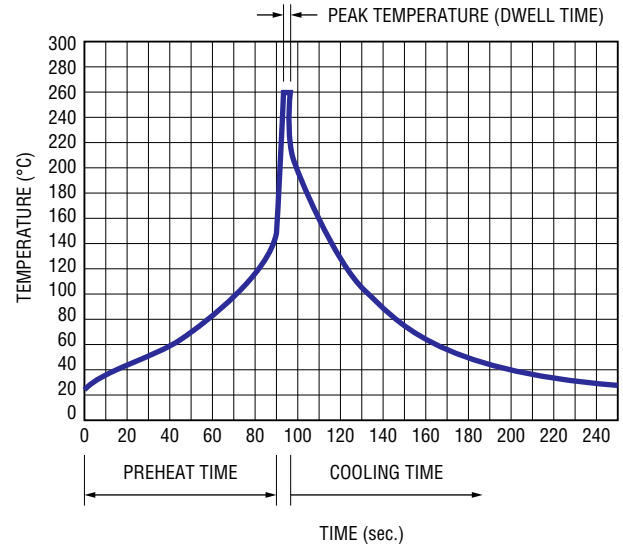
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**I<sub>max</sub> Derating vs. Ambient Temperature Curves**



**Solder Reflow Recommendations**



**Standard Packaging Quantities**

<b>Bulk</b>	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